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By EDMOND HAMILTON

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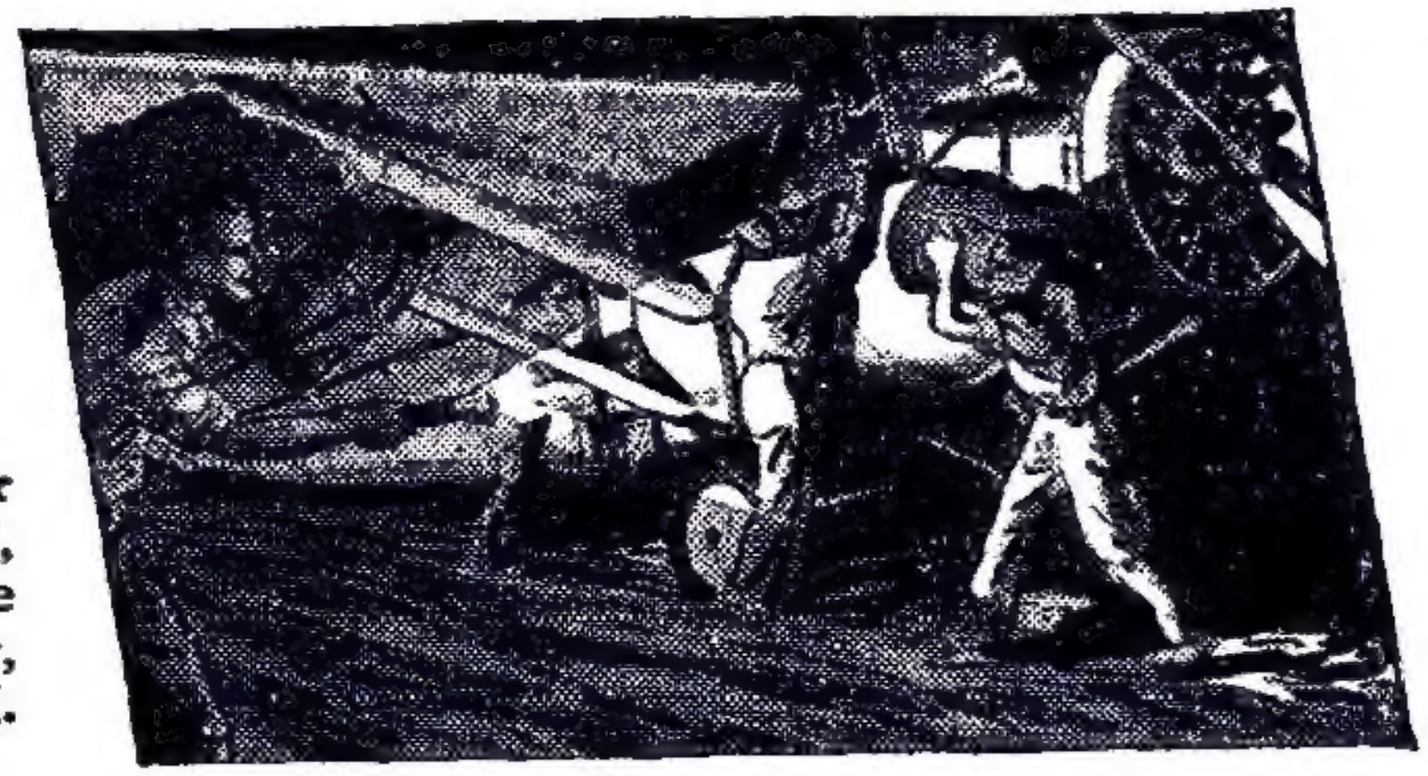
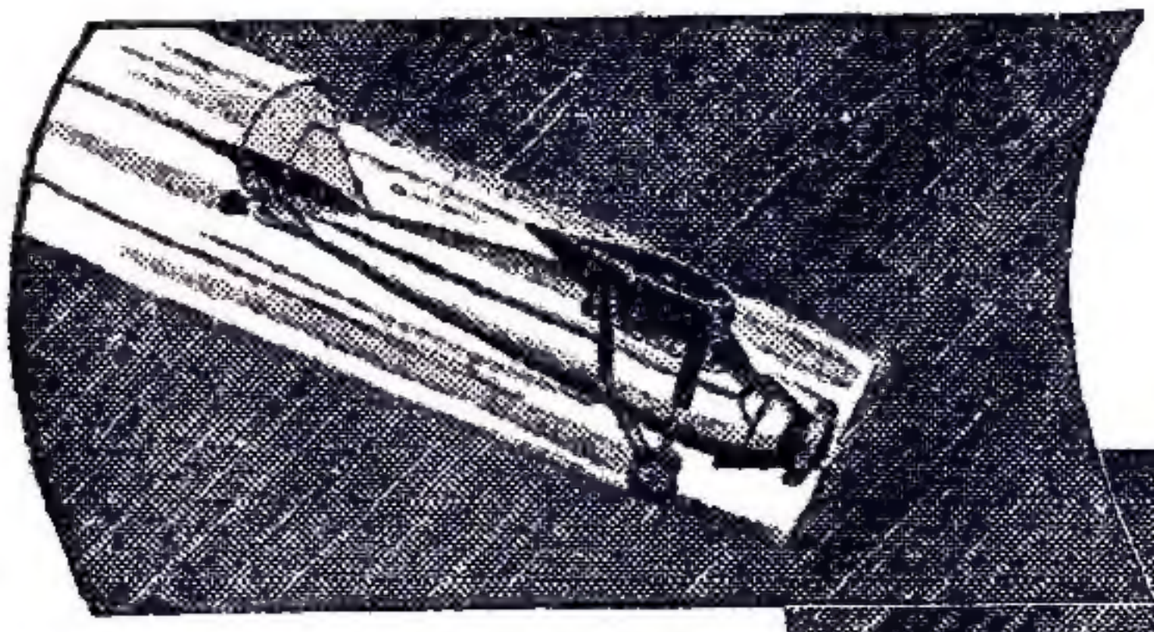
## TROPIC DOWNPOUR BRINGS ADVENTURE TO ROUTINE FLIGHT

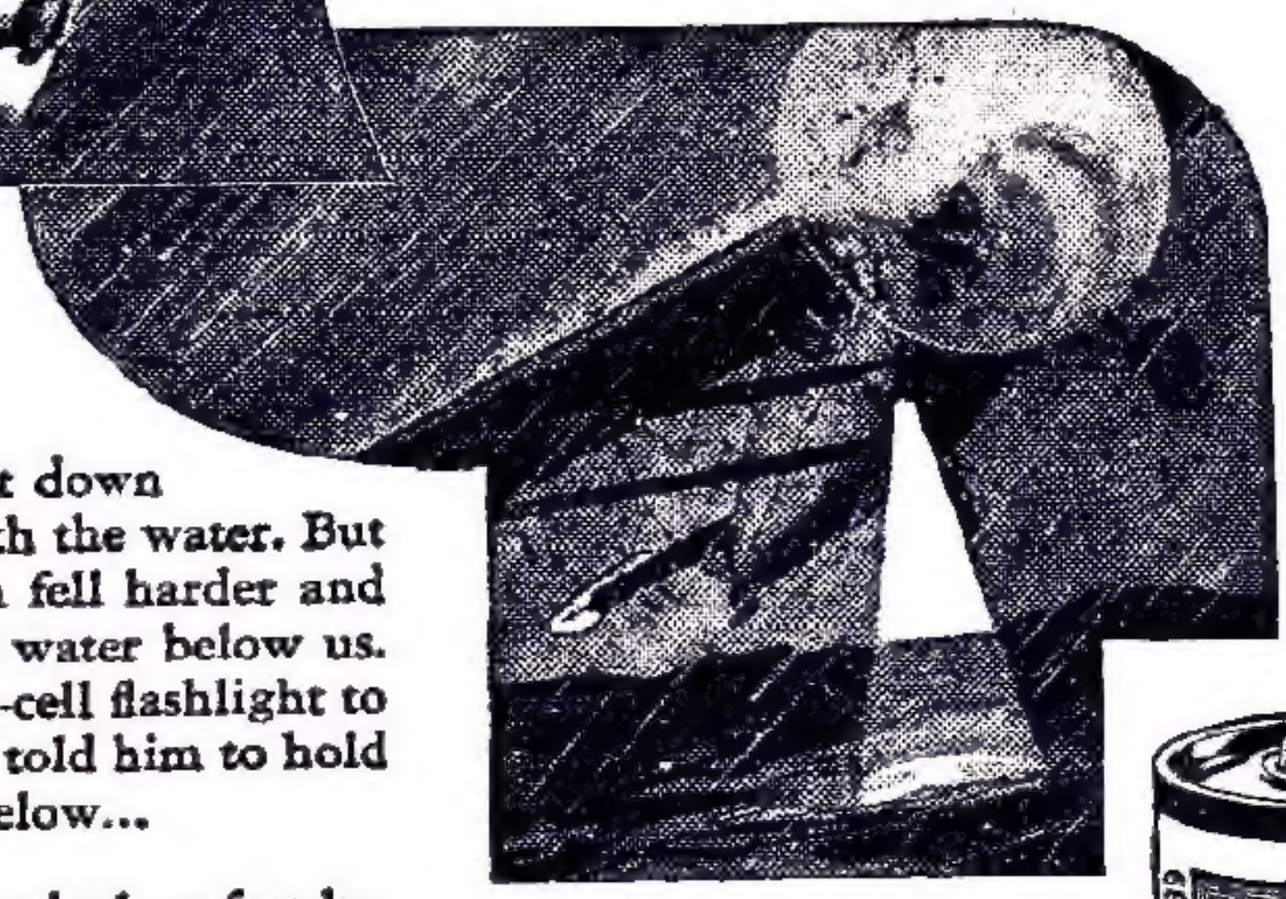
OLEN V. ANDREW



❶ "I had flown four friends over to Lihue, on the island of Kauai, for a weekend of camping on the beach," writes Olen V. Andrew, P. O. Box 3295, Honolulu, T. H.



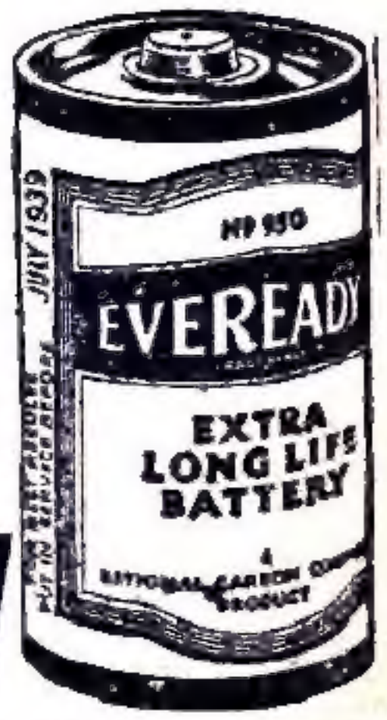
❷ "We broke camp at three o'clock Monday morning, packed our dunnage in the plane and crawled in for the 100-mile hop back to Honolulu, all of it being over water. There was no moon, but the night was clear when we started. Five minutes later...



❸ "...we ran into a driving rainstorm. I couldn't fly over it, I didn't have proper instruments for flying through it, so the only thing to do was to get down low and keep visual contact with the water. But it kept getting darker, the rain fell harder and harder, till we couldn't see the water below us. I handed my big 'Eveready' five-cell flashlight to the fellow in the co-pilot's seat, told him to hold it out the window and flash it below...

❹ "...and there was the sea, only four feet below us! Those long Pacific rollers were almost lapping at the wheels! My heart skipped a beat to think how I had brought five people within inches of their doom! Certainly it was the power of those 'Eveready' *fresh* DATED batteries that saved us all, and that kept us safe above the sea for the next half hour till the storm lifted. You can take it from me, I don't fly without 'em.

(*Signed*) Olen V. Andrew"

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# STARTLING STORIES

Vol. I, No. 3 — MAY, 1939

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STARTLING STORIES, published bi-monthly by Better Publications, Inc., N. L. Pines, President, at 4600 Diversey Ave., Chicago, Ill. Editorial and executive offices, 22 West 48th St., New York, N. Y. Application for entry as second class matter pending at the Post Office at Chicago, Ill., under the act of March 3, 1879. Copyright, 1939, by Better Publications, Inc. Yearly $.90, single copies $.15; foreign and Canadian postage extra. Manuscripts will not be returned unless accompanied by self-addressed stamped envelope and are submitted at the author's risk. Names of all characters used in stories and semi-fiction articles are fictitious. If a name of any living person or existing institution is used, it is a coincidence.

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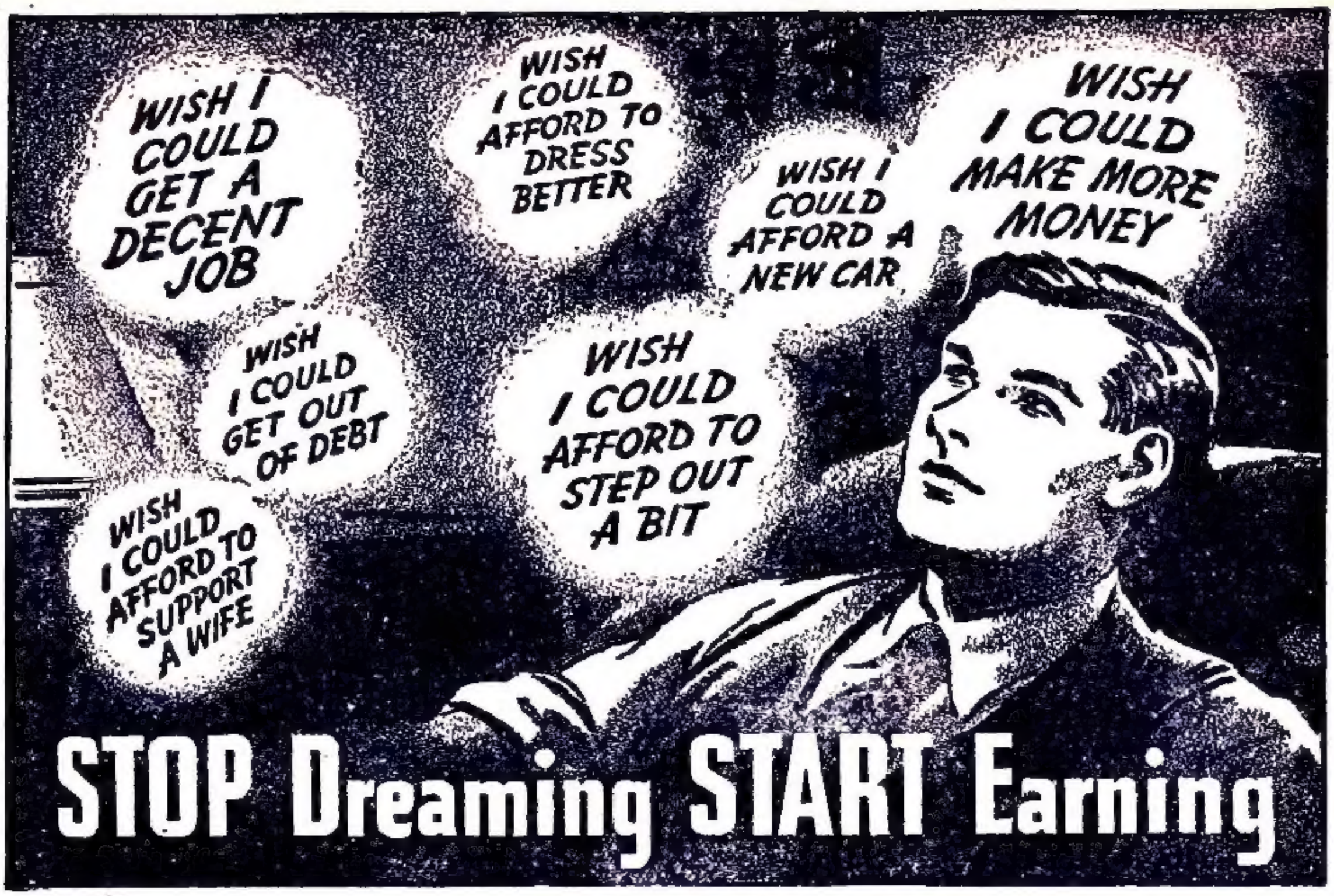
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National Radio
Institute,
Dept. 9E09
Washington,
D. C.

J. E. SMITH, President
National Radio Institute, Dept. 9E09
Washington, D. C.

Dear Mr. Smith: Without obligating me, send "Rich Rewards in Radio," which points out spare time and full time opportunities in Radio explaining your 50-50 method of training men at home in spare time to become Radio Experts. (Please write plainly.)

Name..... Age.....

Address .....

City..... State.....

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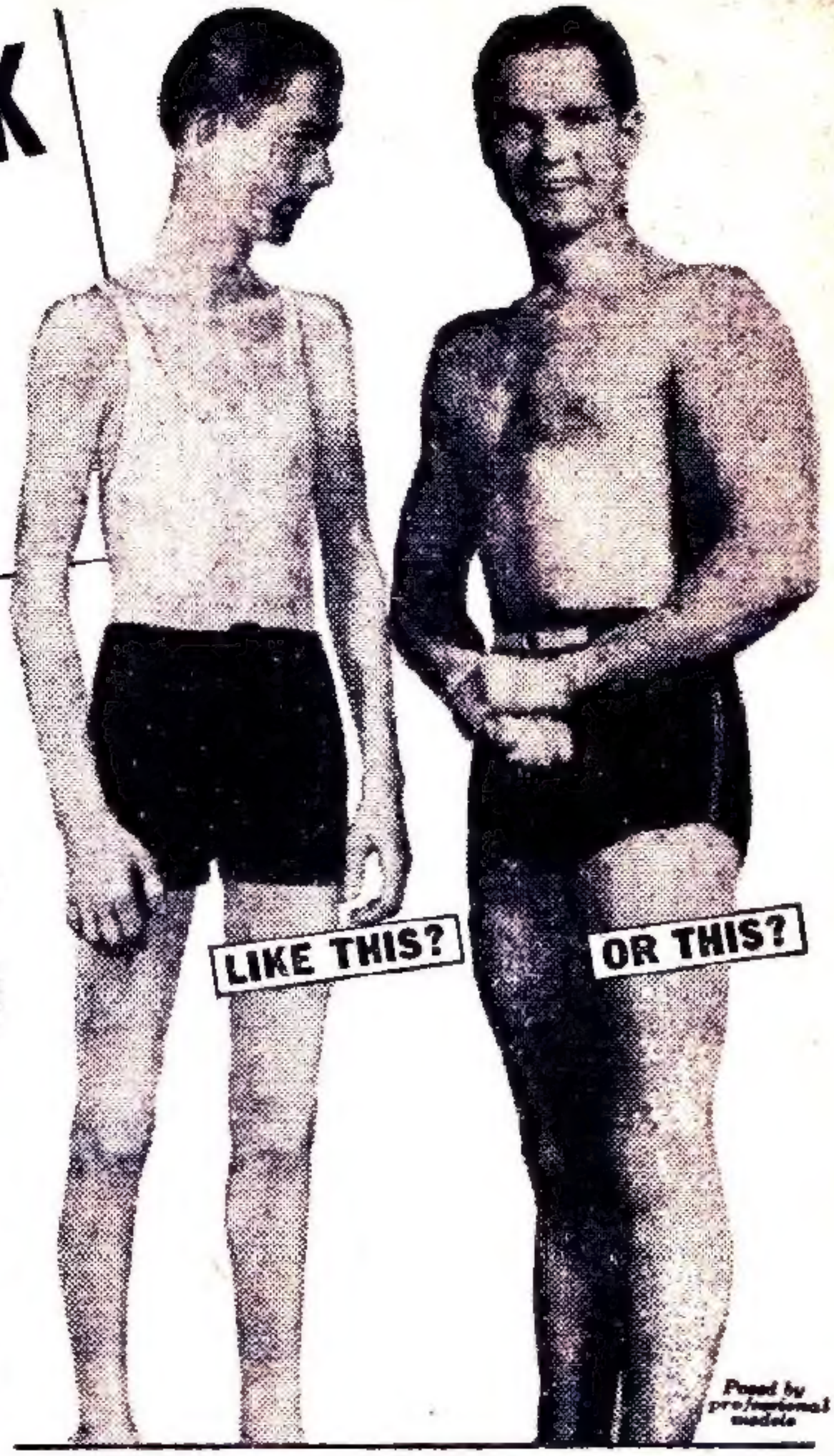

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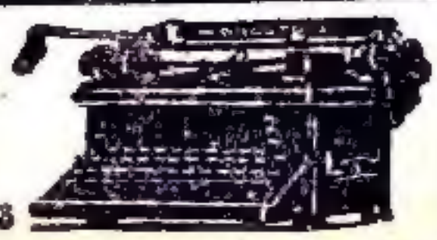

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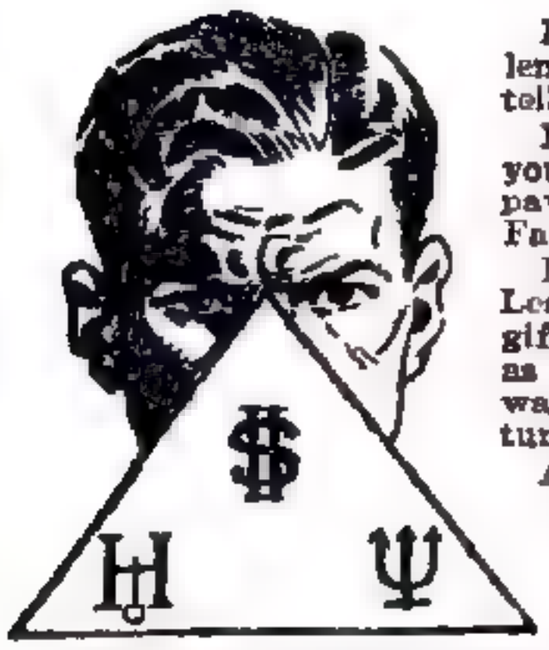


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Month Date (1-31) Year

Name .....

Address .....

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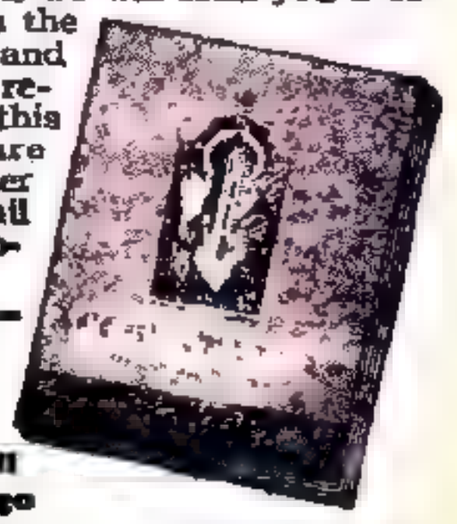

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"Yes, Mr. Moore,
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It's due to methods used
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"Slow-distilled in ways old-fashioned,
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*A blend of straight whiskies—90 proof—every drop is whiskey.*
*Frankfort Distilleries, Incorporated, Louisville and Baltimore.*

Vol. 1, No. 3 STARTLING STORIES May, 1939

# This Atom—Earth

## *A Guest Editorial*

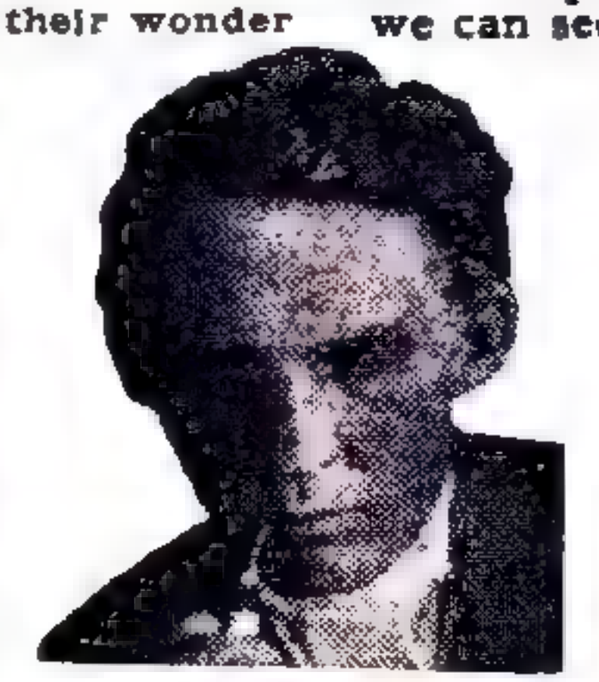
## By RAY CUMMINGS

FAMOUS SCIENTIFICTION AUTHOR

HAVE you ever seen a man strutting with his own importance? One of those fellows bursting with the consciousness of his tremendous knowledge? You gaze at him, perhaps with amusement. He reminds you of Oliver Goldsmith's lines:

"And still they gazed; And still their wonder grew
That one small head could carry all he knew."

Perhaps, if you come to think of it, we're all a little like that. "To each man's consciousness, himself is the center of the Universe." That's a natural human feeling. And this Earth of ours is quite a big place. It has lots of acres of land, and quite a few leagues of ocean. Justifiably we're proud of the wonders we put here on Earth; we gaze around and we're monarch of all we survey.



Ray Cummings

But it's nothing to get puffed up about. Pseudo-scientific fiction demonstrates that to us very clearly. Now I think that the last thing in the world that pseudo-scientific fiction is designed to do is to point a moral. Yet from it one may glean many great moral truths. If by any chance, you are a fellow wondering how one small head can carry all you know, give a thought to a fish.

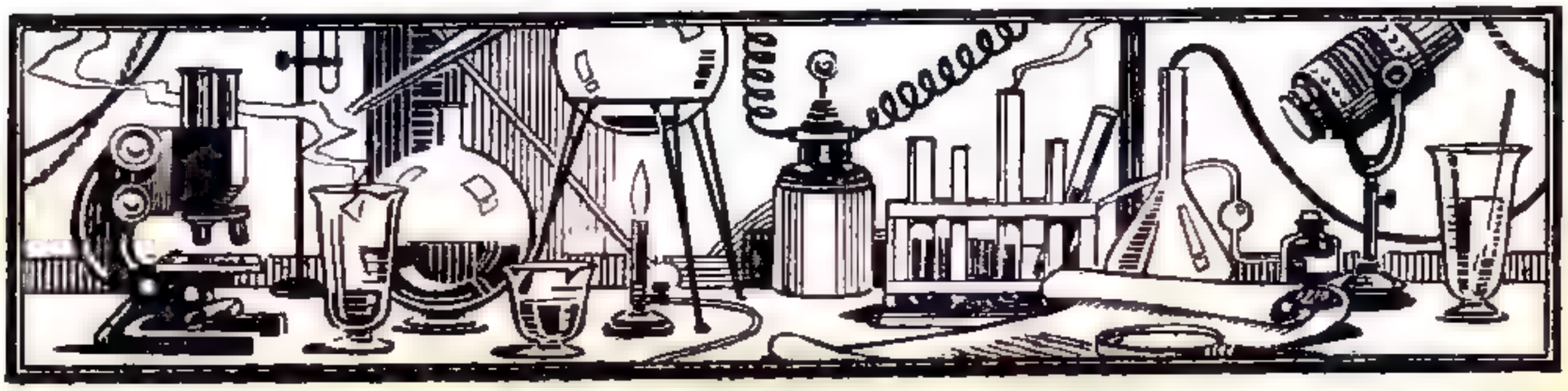
Doubtless, to a fish's consciousness, "himself is the center of the Universe." There is a little gray blur of water which he thinks is about all of everything that exists. Unless he jumps momentarily out and sees a few trees on the bank of the stream. Or if he swallows a fish-hook, which hurts and puzzles him—until death relieves him of the puzzlement.

It seems to me that we're all very much like that. Our telescopes show us spiral nebulae, maybe a trillion light-years away; and we pat ourselves on the back because we can see so much. But isn't that like the fish who saw the trees? Isn't it more probable—as pseudo-scientific fiction depicts—that our Earth, the Solar System, all the stars and remote nebulae—that all of it is just a group of tiny whirling electrons within the atom of some gigantic world? A Being on that other world might be walking on a beach. That beach would have a lot of grains of sand—and just one grain would have a trillion-trillion atoms, just one atom of which would hold the giant distances of all our celestial Universe!

That Being, balancing that grain of sand on the end of his thumb, if you could imagine that he would bother to think of us at all, certainly would indeed wonder what we had to be puffed up about!

That's just one of the things that all we followers of pseudo-science fiction realize fully, of course. It's all very simple, to us. As a matter of fact, because we read, avidly and understandingly, this greatest of all types of fiction, we are in truth just a little above other mortals in the intelligent understanding of many, many things. We all know that, of course.

And come to think of it, that's something to get puffed up about.



# The PRISONER

A Complete Book-Length
Novel of War
Between Worlds

By
EDMOND
HAMILTON

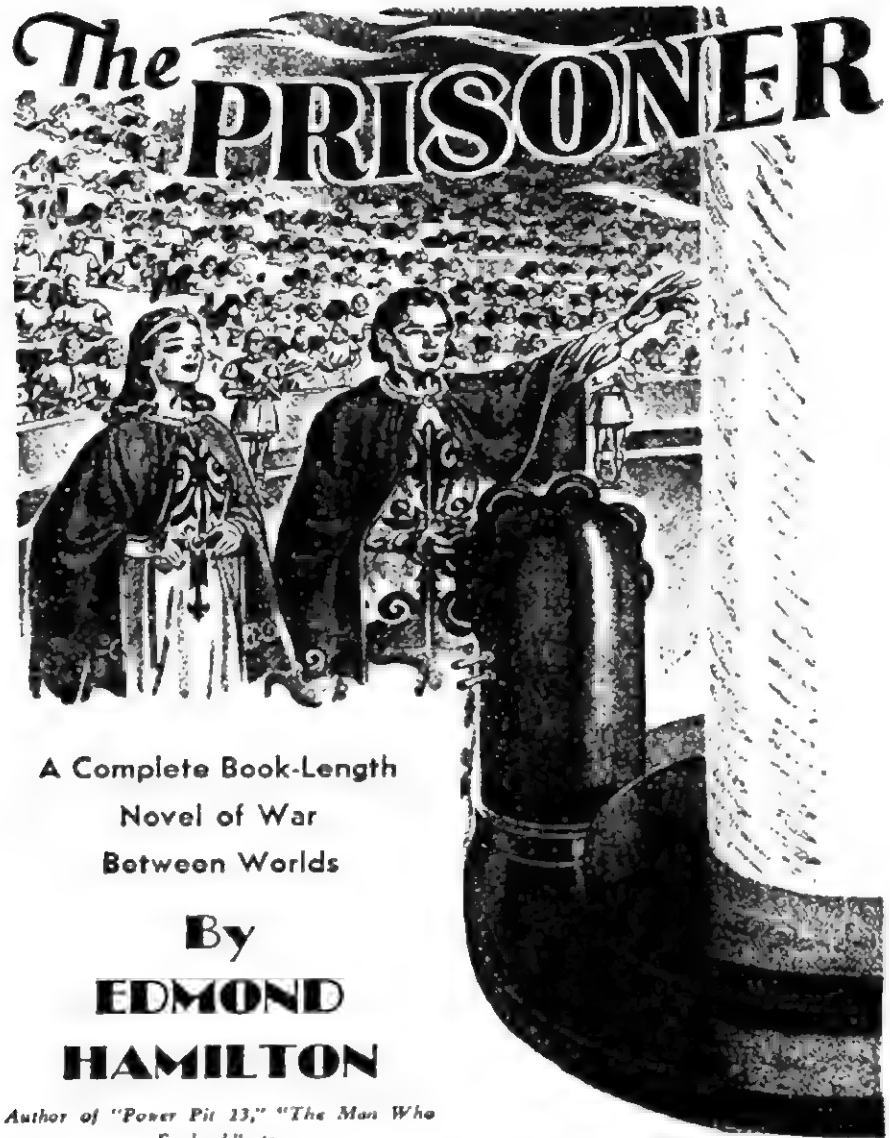
*Author of "Power Pit 13," "The Man Who Evolved," etc.*

ILLUSTRATED BY H. W. WESSO

*The doomed ones moved in single*

**A Mighty Martian Race Bridges Starless**

# The PRISONER of MARS



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*The doomed ones moved in single file toward the blazing shaft (Chap. XII)*

**A Mighty Martian Race Bridges Starless Space to Steal the Oceans of Earth!**





### CHAPTER I

*Ancestral Voices*

PHILIP CRAIN had no premonition on this October Sunday evening of the strange chance that was about to hurl him into unparalleled adventure. He had called at the apartment of Dr. John Martin, simply because the geologist and his daughter were the only friends the lonely young engineer had made since he had come to New York.

Crain had been lonely all his life. That was partly due to the odd mystery that had always clung about him, the strange something in his brain that had set him apart from other men. And partly, he knew, it was due to the

*file toward the blazing shaft (Chap. XII)*

## CHAPTER I

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alien quality of his physical appearance.

His tall, rangy figure, and his lean, dark face were not unusual. But his eyes were of a deep blue-black shade that most people found disturbingly strange, and his hair was of that same queer blue-black.

As he sat now beside Dr. Martin, watching Kay Martin and Scott Fulton, red-headed young airplane pilot, dancing to the radio music, Crain was wishing wistfully that he could join in their youthful gayety.

The music from the radio suddenly died, and was replaced by an announcer's excited voice. "We interrupt our program for a special news bulletin, ladies and gentlemen."

"What's happened now?" wondered John Martin.

"Perhaps it's another European crisis," Crain suggested.

"Darn it, we just got that orchestra a minute ago," Kay Martin was complaining, disappointment on her vivid, pretty face.

"But it may be important news," her father said. "Listen—"

The announcer's voice was now rushing excitedly from the radio.

"—and so it appears that the meteor that fell tonight is not a meteor at all, but some kind of projectile. A ship from space? It seems impossible, but it may be true. We will continue to bring you news bulletins on it at frequent intervals."

Kay looked startled. "A ship from space? Do you suppose—"

"It's probably some kind of hoax," said John Martin, his massive face thoughtful. "There's not much likelihood of . . . Why, Philip, what's the matter?"

Philip Crain was utterly rigid, his dark eyes dilated and fixed in a hypnotized stare upon the radio. He suddenly realized that, and relaxed, with a shaky sigh. His whole body was trembling.

"Philip, what's wrong?" Kay exclaimed.

"I—I don't know," he said, bewildered. "When I heard that announcement, it was as though I started to remember something—something I've been trying to remember all my life."

THEY stared at him, puzzled. And Crain flushed, but every fiber of his brain was throbbing with queer excitement. That radio announcement—it had somehow stirred to quickened life the shadows in his mind that had haunted him since boyhood. As Crain fought to appear calm, the announcer's voice came again in an excited shout.

"The projectile's end is opening—creatures coming out! Creatures from space! They're using strange weapons—they're invading Earth—"

A wild, ringing shout burst from Philip Crain's lips! A bull roar utterly unlike his usual diffident voice.

His blue-black eyes were blazing, and his white face was the hard harsh face of a stranger. His whole body was quivering, his fists clenched.

"Philip!" cried Kay, terrified.

Her scream broke the spell. The blazing madness fled from his distended eyes. And he stood, shaking, his brow damp with sweat, his eyes wild.

Frantic anxiety was on Kay's face, as she clutched his arm. Scott Fulton was staring at him, startled, and John Martin was rising. Astonishment was on the geologist's face.

The radio announcer's voice suddenly shattered the scene to commonplaceness.

"You have been listening to our regular Sunday evening play—"

"A play! I knew it!" Scott Fulton exclaimed. "I'll bet it caused panic in lots of places."

"Philip, what on earth made you shout like that?" Kay cried. "That bellowing voice, and the way you glared and shook your fist! You looked like a different man."

Crain's eyes stared hauntedly at them, out of depths of pure misery.

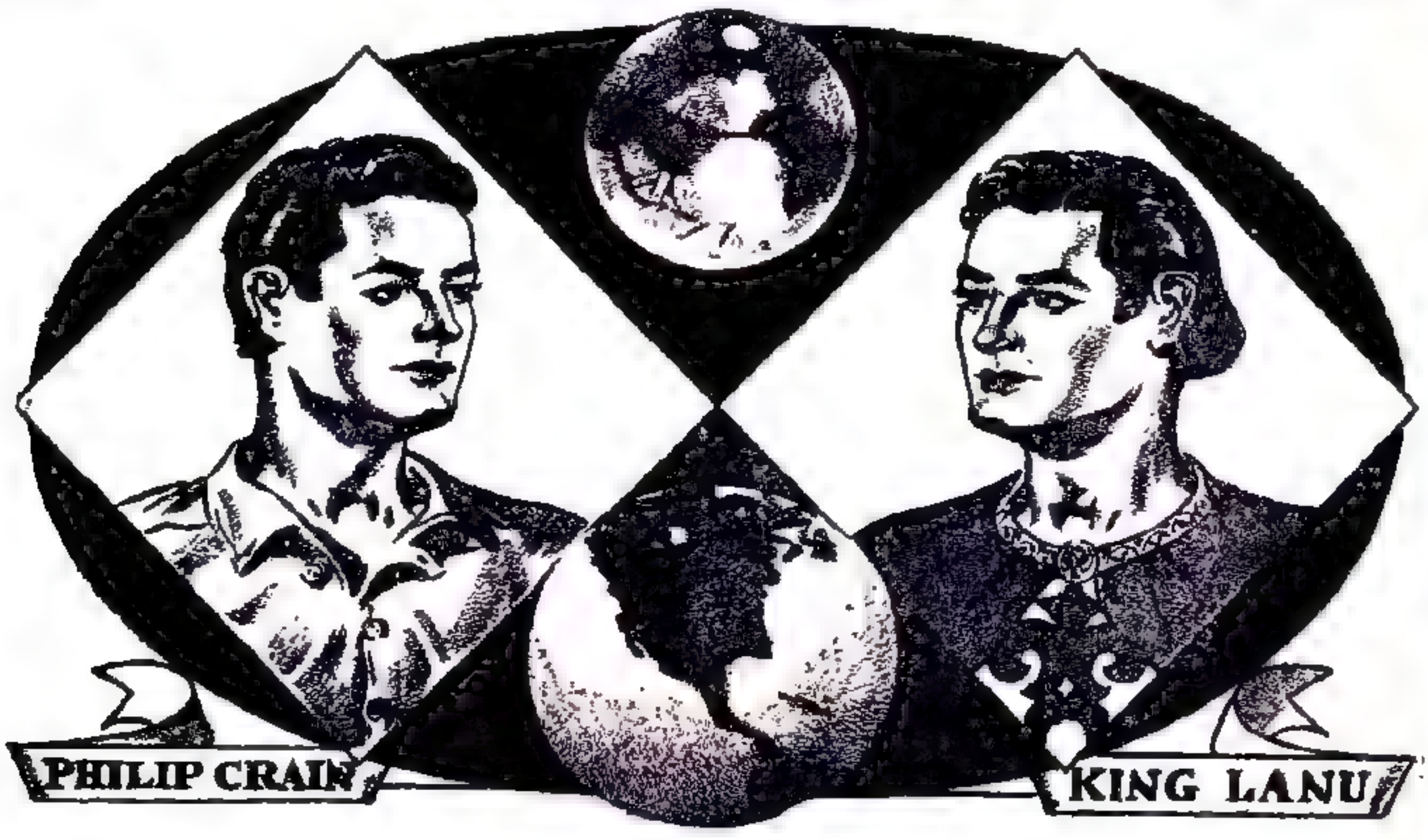
"I don't know what made me do it, Kay," he whispered. "Unless—" the dull, aching misery in his white face was raw, quivering, as he met their gaze. "I've been afraid, all my life," he muttered dully, "that there's something wrong with me, mentally. Now this—"

"Nonsense!" declared John Martin forcefully. "You just let yourself get too excited by this fake radio an-

nouncement, Philip, and lost your head for a moment. That's all."

"It didn't make you people lose your heads," Crain reminded heavily. "But I—I've always feared that I inherited a queer mental taint."

"You mean," said the geologist, surprised, "that your parents were not normal?"




"My father wasn't," Crain answered dully. "People thought him a little crazy. You see, he didn't know who he was."

Crain's haunted eyes looked broodingly into the past. He spoke in a slow, heavy voice.

"THIRTY years ago, some hunters up in the Canadian wilderness south of Hudson Bay found a crazed man wandering in the wilds. A giant of a man, naked, exhausted, starved, and near death from a bad wound on his head. He knew nothing, remembered nothing—not even his own name, not even a word of any language. His mind was an utter blank.

"They took him to the nearest trading post, and the priest there cared for him, taught him how to speak English, and give him the name of John Crain. In time, John Crain came to the United States, married, and had a son—myself. And he never remembered anything about his past. He died five years ago—without remembering."

A sick agony was in Philip Crain's voice as he concluded.

"So many times I've seen my father sitting, staring, trying to remember. And he couldn't! It was a shadow on his life. And it's been a shadow on my life, too. For I've feared that I have inherited Father's—queerness. I've always felt somehow that there were important things that I ought to remember, and yet couldn't. Sometimes when something has excited me, as this radio hoax did tonight, I've seemed on the very verge of remembering. I can't get those shadowy things out of my mind!"

Crain's deep eyes were almost pleading as he looked up at them.

"Do you think it's because I'm—queer, mentally?" he whispered. "I'd rather be dead than that."

"Philip, no!" Kay cried. "You've just brooded too long about your father!"

"Kay's right," declared John Martin. "Philip, you should have told us about this long ago. We'd have made you see what nonsense it is."

"There is not a chance in the world that your father was mentally defec-

tive, Philip," John Martin said emphatically. "Amnesia, generally a result of shock, must have been what happened to your father. But it is not a form of insanity, and it could not be passed down from father to son."

"Then why is it," Crain cried, "that all my life I, too, have felt as though there is something I can't remember?"

"It's all unconscious imitation on your part—imitation of your father," Martin declared. "You saw him trying to remember his past, and it made you think you had something you couldn't remember."

"I wish I could believe you," Crain muttered, "but if I were really normal, why should I have lost my head when that radio hoax startled me?"

"Philip, this obsession would leave your mind if you knew who your father really was," John Martin declared earnestly. "It's just that old mystery, preying on your mind, that's unsettled it."

"But I don't know," Philip Crain said hopelessly, "and there's no way of finding out."

"Did you ever go up there to Canada where your father was found and try to get a clue to his identity?" the geologist asked.

"No, but Father went up there, twice, and he couldn't find anyone up there who had ever seen him or heard of him, before he was found in the forest."

"But you could comb the wilderness country and remote posts better than your father was able to, by airplane travel," Martin persisted.

FOR the first time there was faint hope on Crain's white face.

"Do you really think there's any chance of learning something?" he asked earnestly.

"Of course I do!" John Martin declared. "And what's more, Kay and I will go with you. We've been planning a northern vacation this fall, and it will fit in fine."

"Dad, I was hoping you'd suggest that!" exclaimed Kay, her brown eyes shining.

"Say, count me in on this party," put in Scott Fulton. "I've got a vacation coming, too, and we can all go up there in my plane."

"Scott, that's fine of you to do this for us!" declared Kay happily.

"For you?" repeated the grinning pilot. "I'm thinking of the swell fishing up there."

Black hopelessness swept back on Philip Crain for a moment. It was all so futile, to try solving a mystery thirty years old. Yet if he only could solve it—

Those shadowy half-memories in his brain made him suddenly strangely eager for this quest to attain something he dimly felt had lain up in that far northland for years. Something mysterious and tremendous that was waiting up there—waiting for *him!*

## CHAPTER II

### *Mystery Wreck*

"HERE'S the place!" Scott Fulton called over the motor roar. "Down there east of those river forks."

The place where John Crain had been found! Philip Crain gazed tensely down.

The vast forest of northern Quebec that lay below in the morning sunlight stretched limitless as a shaggy sea, a whispering, dark green immensity of hemlock and pine. The nearest trading post was two hours' flight to the south. How had his father come into this remote wilderness, naked and wounded? From where had he come?

Crain felt hopelessly that this was his slim last chance, this visit to the remote wilderness spot where his father had been found.

"There may be some clue there," the geologist had insisted, but in his own mind, Crain had felt that the mystery would never be solved—the shadow on him would never be lifted.

His mind took him back to nights when he had seen his father's giant figure standing dark and motionless outside the house, staring yearningly up at the glittering sky as though trying to read in the heavens the secret

of his identity. He remembered times when John Crain, in the midst of work or play, would suddenly stop and stare in baffled wistful perplexity as though he had been reminded of some other life, some other existence. Reminded of—what?

"Look, there's something down there!" Kay suddenly cried excitedly. "There!"

Crain saw it. His heart jumped. It was a dull-gleaming, crumpled metal bulk, lying at the bottom of a small wooded ravine.

"Some sort of crumpled metal wreck!" Crain cried.

"We'll investigate, then," declared John Martin. "That ravine's only a dozen miles from where they found your father. This may mean something."

Scott Fulton had already spotted a tiny lake where he could land the amphibian. In ten minutes, they were backtracking through the forest toward the wreck.

"Don't build up too big hopes on this, Philip," advised the geologist. "It may be nothing at all."

"I know," answered Crain, yet his dark eyes were vibrant with new hope.

The giant pines and hemlocks had choked out underbrush, and they walked in the solemn cathedral shadows of the huge trunks, upon a yielding carpet of dead pine needles. The air was chill with the nip of fall.

But the narrow ravine was filled with saplings and brush. Their clothes were torn and they were out of breath by the time they climbed down into it and started forcing their way along the bottom of the ravine.

In five minutes, Scott Fulton yelled. "There it is ahead!"

A dull-gleaming, crumpled silvery bulk was showing through the dense brush and saplings.

Philip Crain crashed forward, his heart pounding with excitement. The others were close on his heels. They all stopped short as they reached the metal bulk.

"What a crack-up!" Fulton exclaimed.

"It's no airplane, as I supposed," John Martin said, his brows knitted. "But what is it?"

CRAIN'S eyes were brilliant as he stared at the wreck—for now the shadowy half-memories in his brain were stirring and seething wildly. This strange-looking wreck seemed somehow *familiar* to him.

It had been, he saw, a cylindrical metal craft, twenty-five feet in diameter, and sixty feet long. But the whole front half of it had been smashed by terrific impact. The rear part of the silvery ship was more intact.

"This things has been here for years," John Martin declared. "See how the saplings have grown up through the wreckage in that front part."

"It looks to me like one of the freak airships they used to build, back in the early days of flying," Scott Fulton affirmed. "Plenty of weird ones were tried, then."

"That would date this at thirty years or so ago, if you're right," Martin said thoughtfully.

"And it was thirty years ago that my father was found wandering near here!" Philip Crain cried excitedly.

The geologist nodded. "If your father was in this thing when it crashed, that accounts for the wound on his head, the shock that snapped his memory."

"Then maybe we can find in this wreck some clue to who my father was!" Crain cried eagerly.

He was already moving excitedly around the wreck, trying to find entrance. In a moment, he found a door in the undamaged rear of the craft. He climbed in quickly.

The others followed. They found themselves in a corridor leading toward the stern. It was littered with pineneddles, dry leaves and dust that the winds had blown in. It ended in a wide metal door without knob or key.

"The whole darned ship is of solid metal!" Fulton marveled. "No wonder the blamed thing crashed."

"It's an extremely light and strong metal," said John Martin, fingering a fragment of it he had picked up. "Whoever designed this ship must have known a few things."

Crain paid no attention. He was

reaching up and pressing a plate above the closed door. The door slid open.

"How did you know that was the way to open it, Philip?" Kay asked in astonishment.

Crain stopped, queerly chilled by realization. How *had* he known?

"I don't know," he said bewilderedly. "I just seemed to remember—"

Scott Fulton was staring beyond the open door. He uttered an exclamation.

"What the devil is this thing?"

The whole rear of the ship had been a single metal chamber. It had apparently been designed to hold, in a shock-absorbing framework of heavy girders, a large machine.

It was a mechanism of grotesque unfamiliarity. Its most striking feature was a disk-shaped platform of thick, milky crystal, ten feet in diameter, and standing on foot-high insulators. Underneath the crystal disk was a web of wires connected to the apparatus which was grouped around it.

SIX objects like big beehives, wound with silvery wires and each topped by a crystal ball, were set at equidistant positions around the crystalline platform. At one point on the edge of the platform rose a metal switchboard, bearing a row of eight turn-switches, a bright red button, and a cluster of small glass bulbs.

Directly above this switchboard hung a large black metal cone, hollow, its base pointing downward toward the disk of crystal.

"What is it?" Kay exclaimed.

"I've no idea," her father answered, frowning. "I've never seen an apparatus or machine like this."

Philip Crain did not hear them. He was staring at the mechanism with his blue-black eyes wide, brilliant with excitement. This machine—he vaguely remembered *it!*

He had no memory of what its purpose was. But something seemed to tell him that the mechanism was of vast importance, something upon which colossal things depended, and with which he was connected.

"Let's get it out of here into the open, and try to find out how it's operated," he cried. "If we can find out the nature of this apparatus, that will inform us as to the purpose of this old airship expedition. We can then try to find out where such an expedition started from, thirty years ago, and who was in it."

John Martin's massive face was doubtful. "But can we get the thing out, Philip?" he demurred.

"Those doors are all wide," Crain pointed out. "Obviously they were made so, to facilitate getting this machine in and out. With a little effort, we can get it out."

Seeing the eagerness in Crain's face, John Martin assented.

"Very well, we'll do it. Kay, you might look around for papers or anything like that."

There began a period of arduous toil. They cut saplings, trimmed them, and used them for skids and levers with which to force the heavy, squat mechanism out of the wreck. By the time they finally had it out, and resting in a little grassy clearing, it was late afternoon.

Scott Fulton grunted with relief. "Glad that's over. Now I'm going to give the wreck itself the once-over, while you fiddle with this do-funny."

Kay, with a troubled glance at Philip Crain, accompanied the pilot. When they returned, an hour later,

Crain was still fascinated with his examination of every detail of the queer machine.

"I can't understand the design of that craft," Fulton told them, puzzled. "There are big tubes running the whole length, that might have been exhaust tubes or rocket tubes. But who ever heard of rocket experiments, thirty years ago?"

John Martin shook his head, frowning. "Everything about this wreck is queer. I wish I understood it."

"Have you found out what this machine is for, and how it works?" Fulton asked.

Philip Crain turned his excited face up to them. "No, we haven't yet. The thing is a complete mystery. But we did find out something."

HE rose and stepped upon the crystal disk, and pointed to the red button on the switchboard.

"See? There's a tiny silver hand on the board, pointing to that button. Put there, I believe, as a reminder that the button was to be pushed first when the machine was put into operation. We're going to try it out."

"I don't like this thing," Kay said suddenly, her brown eyes solemn and distrustful. "It looks so—alien."

But Crain had already eagerly jabbed the red button inward. It caught, with a click.

Two little red lights flashed alive on the switchboard. And a slow humming came from the beehive apparatus around the desk.

Martin and Philip Crain stared amazedly at the humming beehive things.

"Where's it drawing power from?" the geologist muttered in astonishment. "It must have some self-contained source of power, yet there's nothing in it that looks like a battery."

The apparatus hummed on. But there was no other change. Crain's face showed his deep disappointment.

"There must be some purpose to the thing!" he exclaimed.

The shadowy half-memories in his mind were loud, strong, as he stared at the machine. They seemed whispering, pleading. Begging him to do

something with this mechanism, something for which it had been designed, something vitally important.

"If the thing is purposeless," he at last said slowly, "then we can't—"

It happened, at that moment. An overwhelmingly unexpected thing that smote his lips to silence.

A voice shouted from the hollow cone above the switchboard. A shrill, emotion-laden voice, choking with excitement, rising to a scream.

*"Tharkol!"* called that shrill voice wildly. *"Tharkol nyaa rire!"*

They stared at each other, faces white in the dusk. From the cone, the trembling, shrill voice called on.

*"Tharkol! Tharkol!"*

Shrill, quavering voice of an old man, calling as though from far away, with wild, superhuman emotion!

## CHAPTER III

### *Voice from the Void*

JOHN MARTIN was the first to speak.

"This thing embodies a radio of some sort," he declared. "But who is calling us? That wasn't any language I ever heard of, and I know many."

"Tharkol is a name!" Crain exclaimed. "I seem to have heard it, and that language, before."

Crain's tall figure was quivering, his black eyes brilliant. That voice, that strange language, he had almost understood them! And the name Tharkol had for an instant plucked with strong fingers at a fiber of his brain.

Again the excited, emotion-charged voice shrilled from the cone.

*"Tharkol! Su Dandor! Dandor!"*

"Dandor must be *his* name!" Philip Crain cried. "He's expecting an answer."

With swift impulse, Crain stepped forward and shouted loudly up into the hollow cone.

"Philip Crain speaking! Who are you? Where are you calling from?"

Silence then. There was no answer, as the minutes went by.

"The thing must not be able to transmit," Fulton muttered finally. "Your call didn't get through."

Abruptly contradicting him, the aged voice came shrilling from the cone. It was puzzled now, still quivering with frantic excitement.

*"Krayn?"* it repeated. *"Feelip Krayn?"*

"He doesn't understand English!" exclaimed Crain. "I'll try other languages."

"Philip Crain speaking!" he called again. And repeated it in Spanish and French. John Martin added translations in five other languages.

They waited. Again there was a long silence of minutes before the answer came from the cone.

"Krayn?" repeated the aged voice, more puzzled now. *"Quir Tharkol? Su Dandor!"*

"He didn't understand any language we used!" Crain cried. "That's unbelievable."

"There's something a lot more unbelievable about this," John Martin said, pale and stunned. "Have you noticed how long it has taken each time for our message to reach this Dandor, whoever he is, and for his to get back? More than ten minutes, each way!"

"So what?" Fulton said, uncomprehending.

But Philip Crain understood. And he stared frozenly at the geologist.

"That— It's impossible!" he exclaimed.

"What's impossible?" Kay asked anxiously.

Her father explained. "Radio signals travel with the speed of light—a hundred and eighty thousand miles a second. Yet they take more than ten minutes to reach this Dandor, and more than ten minutes to come back from him. He must be more than a hundred million miles from us!"

"A hundred million miles?" repeated Scott Fulton incredulously. "Why, there's no place—" He stopped, his jaw dropping. A look of awe came into his face. "You mean—another planet? Another world?"

"The planet Mars is more than a hundred million miles from Earth right now," John Martin said a little thickly.

"Mars?" cried Kay. "Dad, you can't mean—"

STRICKEN to silence, their eyes turned up toward the heavens in which the glittering hosts of the stars shone calmly bright. And Philip Crain felt wild tumult inside his breast. As though, after all these years, dim certainty was crystalizing in him.

"Yes, Mars," he whispered. "That voice is from there. I know it!"

"But this machine, this radio or whatever it is, couldn't have come from there!" Scott Fulton objected incredulously. "How could it come to Earth?"

"You said the wrecked airship has rocket tubes?" muttered John Martin.

"You mean it's a rocket ship that came here thirty years ago, from Mars?" Fulton exclaimed.

Kay Martin was gazing at Crain's brilliant eyes and transfigured face.

"Philip," she whispered, "if your father was really in that ship, if it was the wreck of its landing that wounded him and caused his amnesia, then he came from—"

"Good God!" John Martin was shaken as he stared at Crain. "Your father couldn't have come from there, Philip!"

"I don't know," Crain said in a heavy whisper. "But that radio hoax about space ships landing—why did that excite me so? Why did it almost make me remember — something?"

"Oh, this is all crazy!" Scott Fulton's voice was a little raw. "The idea that your father could have come from that world out there!"

"Listen!" Crain said suddenly.

The voice, the shrill, aged voice of Dandor, was coming again from the cone above their heads.

*"Krayn! Feelip Krayn!"*

Calling to them, across unthinkable gulfs of space, from far out in the starry heavens?

*"Su Dandor!"* it called. *"Quir Tharkol?"*

Then began a period unreal as a dream, a time in which, for hour after hour, Philip Crain called back and forth to that aged voice of the entity that called itself Dandor. Strange, baffled attempts at understanding each other. And a strange feeling in Crain that he could almost understand Dandor's speech. He felt nothing but the feverish urge to understand that shrill voice with its terrific appeal to him to understand!

"Listen!" Crain ordered excitedly.

Dandor was sending bell notes through to them now; clear, liquid tones. One after another until eight of them had sounded.

And then Dandor's voice, calling loudly: *Ah!! Nan! Zor! Xel! Kuru! Wee! Fin! Oro!"*

Again the eight bell notes, and then the eight strange monsyllables.

"The numbers, from one to eight, in his language," muttered John Martin. "That's clear enough—but why?"

"The eight switches on the control-board of this machine!" cried Crain suddenly. "That's what he's trying to tell us about!"

*"Zor!"* Dandor called urgently from the cone. *"Zor, Feelip Krayn—Zor!"*

"Three—the third switch!" Crain shouted. "He's telling us in what order to turn on these switches, so as to put this machine into operation!"

HIS hand flew toward the third switch. But John Martin grasped him and dragged him back.

"We can't go into this thing blindly, Philip," he protested. "We still don't know this machine's purpose."

Crain's eyes were blazing with excitement. "But that old man — he's pleading with us—has some great purpose, that we don't understand!"

"Philip," Martin declared. "We mustn't go ahead with this until we have learned Dandor's language, know where he is, and what he wants."

Philip Crain hesitated. He recognized the force of the geologist's argu-

ment. Yet he was torn by that pleading, shrill, old voice, and the urge from the depths of his mind to obey.

"We'll wait, then, a little while," he finally said reluctantly. "Until we understand."

*"Zor, Krayn — Zor!"* called the shrill, tense voice from the cone.

Crain's eyes clung to that third switch. What would happen if he closed it?

"Let's leave this until tomorrow," John Martin was saying earnestly. "We all need sleep, rest. Tomorrow, we'll start trying to fathom this mystery."

Crain stepped off the crystal disk and followed the others to the tents. But he kept looking back, torn by the strong impulse to return.

They talked little before they retired. All were too stunned by the tremendous possibilities opened up. And there was constraint in the way they looked at Crain; as though he had suddenly become alien. His own thoughts were whirling. Incredible vistas had opened before him. And the shadowy memories in his brain were clamoring!

Lying on his cot, a little later, Philip Crain heard the heavy breathing of Fulton and the geologist as they slept. But he lay looking up through the open tent-flap at the starry heavens, at the red spark of Mars that now was rising.

That red speck twinkled like a fiery eye, hypnotic, luring. Yes, calling to him!

He could lie like this no longer, in his feverish condition of mind. He rose, silently slipped on his boots, and moved through the starlight toward the wreck.

In the thin starlight, the squat machine bulked darkly, the crystal disk platform gleaming vaguely, the red eyes on the switchboard still glowing. He stepped up onto the disk, and he heard Dandor's voice still coming from the cone.

*"Krayn! Zor—zor—zor—"*

The voice was exhausted, worn and laden with deepest emotion; reduced almost to a husky whisper. Swift sympathy rushed through Crain as he realized that for all this time the aged Dandor must have been calling, pleading.

"I can't do what you want," Crain spoke miserably into the cone, knowing he could not be understood. "They won't let me."

In minutes, the voice of Dandor came back, louder, tremulously begging.

*"Zor, Krayn! Rop Tharkol — zor rop Tharkol!"*

THARKOL! Why did that name set every nerve in Crain's body quivering? He could not understand, he only knew that it made something inside him wildly alive and eager. Decision rushed upon him. Whatever came of it, whatever happened to him, he must do what Dandor asked.

*"Zor,* Dandor!" he cried into the cone, with sudden soaring exaltation of spirit. *"Zor!"*

And his hand, with a convulsive effort, turned the third switch.

For an instant, nothing changed. Then as Crain stood tense, he perceived that deep inside the thick crystal disk on which he stood, a pale blue radiance was gathering. A shimmering, elfin light, that grew slowly until he seemed standing on an opalescent platform of pearly blue fire. And the beehive transformers were humming louder.

Dandor's voice came, wild with frantic joy and relief.

*"Ni Xel, Krayn! Xel!"*

Four bell notes, repeated over and over. And then the command again:

*"Xel!"*

Crain eagerly flung the fourth switch shut. The beehive apparatus hummed still louder. The opalescent light inside the crystal seemed to seethe and swirl, like coiling snakes of blue luminescence. And Philip Crain felt a strange, weird shuddering through his whole body, as though superhuman forces were streaming through him!

*"Ahl, Krayn—ahl!"* cried Dandor's voice, quivering, unutterably tense. A single bell note sounded. *"Ahl!"*

Crain, shaken by that streaming force that flooded him, reached toward the first switch.

"Philip, don't!"

Kay's scream! She was running toward the crystal disk now ablaze with light. She leaped up onto it, clutched his arm wildly. Her face was frantic with fear, brown eyes dilated by terror of the supernatural.

"Kay, get back!" he cried, his face strange, wild. "I've got to do this. Something out there calling me!"

"Father! Scott!" she called frantically.

Crain heard John Martin and Fulton answer in startled voices, come running. They mustn't stop him, now!

*"Ahl!"* Dandor's voice was calling in desperation. *"Ahl!"*

Crain thrust Kay roughly off the disk. Then he leaped to the switchboard.

His hand flung the first switch shut. Even as he closed it, he heard a scream and whirled to see that Kay had leaped back up onto the shimmering disk. And in the next heart-beat, the thing happened.

A terrific blaze of blue force exploded upward. Crain seemed to feel every atom of his body inconceivably wrenched and riven by that awful force.

He felt himself hurled into darkness. He could not see or hear but he had the weird sense of flying out into space at a velocity inconceivable. Rocketing out into the void as fast as light itself!

In that terrific moment, he was aware of Kay, somewhere near him, flying out like himself into unimaginable abysses. He sensed approach to some vast body. Then he felt another terrific wrenching shock. And then darkness.

## CHAPTER IV

### *Son of Mars*

CRAIN opened his eyes. His brain was so stupefied by unearthly shock that for a moment he did not appreciate the full startling nature of his situation.

He was lying upon a crystal disk, and Kay lay unconscious beside him. This disk was dull, dead, not blazing with light. Crain thought at first that he and Kay had only been stunned by some strange force from the machine.

"Krayn!" cried a shrill, astounded voice. And that voice came from beside him!

Crain looked dazedly up. An old man, with a withered face was bending over him. His brow was high, his hair scant and white with years. But his eyes were wonderful — black, large, expressive of immense intelligence.

This oldster wore a short white silken tunic over which a long gray silk cloak was flung. And he was looking down into Philip Crain's face with an expression of stupefied amazement.

"You—who are you?" Crain muttered hoarsely.

"Dandor!" cried the oldster eagerly, touching his breast. "Su Dandor!"

Dandor! The man who had called to him across the void? Crain's heart jumped wildly. How had he come to be here at Dandor's side? *Where was he?*

He scrambled to his feet, momentarily unheeding the unconscious girl. His tall figure swayed, his dark eyes dilated as he gazed wildly around him.

"This place," he choked. "Where am—"

He was in a big round room whose walls were of time-worn blocks of pale red stone. It was lighted by a flaring section of the ceiling, like an artificial sun. The mechanism on which Crain stood and Kay lay was at the center of the room. Around the walls rose machines of unfamiliar appearance. Some seemed telescopic and spectroscopic apparatus, another looked much like a dynamo, and still another was oddly manlike, with huge silvery metal body, arms and legs, and a bulbous head with two glittering lenses like eyes.

Crain's dazed gaze fixed on an open window. He stumbled toward it. His body felt unusually light, weightless. Cold wind hit his feverish brow as he looked from the window—cold, pungent dry air laden with fine sand particles. His mind was reeling at the strangeness of the scene outside.

He looked out upon an alien world! A vast, undulating plain of moonlit sand, stretching to dim horizons. Strange little flickers of light, like g h o s t l y will-o'-the-wisps, drifted above the solemnly silent sands. Low in the southern sky, in a canopy of brilliant stars, hung *two* silvery moons, one high and small, the other a brilliant shield moving perceptibly eastward!

It was a vista of alien enchantment and lonely beauty upon which he looked from the topmost chamber of an ancient, massive, round stone tower. But most wonderful of all, this outlandish vista was vaguely familiar to Philip Crain. He knew, suddenly, where he was. Even though the knowledge was incredible.

"Mars!" he cried thickly. "My God! Another world!"

HE swung wildly around. His burning gaze probed Dandor.

"How did I get here?" he cried hoarsely. "You—whoever you are—speak!"

He stopped. His eyes had wandered to the machine of the crystal disk, on which Kay Martin lay, stirring.

In an appalling flash of perception, Philip Crain understood. That machine and the one like it in the Canadian forest back on Earth, bridging the abyss between worlds—

"Philip!"

Kay was sitting up, her eyes brown pools of terror. He stumbled to her side and took her into his arms.

"Philip, what's happened to us?" she cried.

He tried to make his voice calm, to fight down his own rising hysteria.

"It's unbelievable, Kay, but that machine we found and experimented with back on Earth has somehow projected us to this world. To Mars!"

Her face went white. Her cry was frantic. "Then we've got to get back to Earth!"

"Yes," Crain said hoarsely. He swung toward Dandor, and gripped the old man's thin shoulders frenziedly.

"You've got to send us back, understand! Back to Earth—now!"

There was a swift, ponderous clank of metal from a corner of the room. And Kay screamed wildly. The huge, manlike machine was moving. A living machine, a great robot that was lunging straight toward Philip Crain.

Crain let go his hold upon Dandor with a cry of horror. But the robot's metal hands were already grasping Crain, lifting him from his feet, to dash him down on the floor.

Raised aloft, Crain fought furiously, but his wild blows only bruised his fists upon the impervious metal head and body.

"*Kro—leor!*" cried Dandor frantically.

The robot, Kro, stiffened, holding Philip Crain in mid-air. Dandor shouted another sharp command and Kro, in obedience, put Crain gently down on the floor. But the robot still stood watchful, unhuman lens eyes watching every move Crain made.

Crain was dizzy, trembling. He realized that the robot had thought he was attacking Dandor.

Dandor spoke swiftly to the robot. Crain heard the names "Lanu" and "Ingomar" repeated several times.

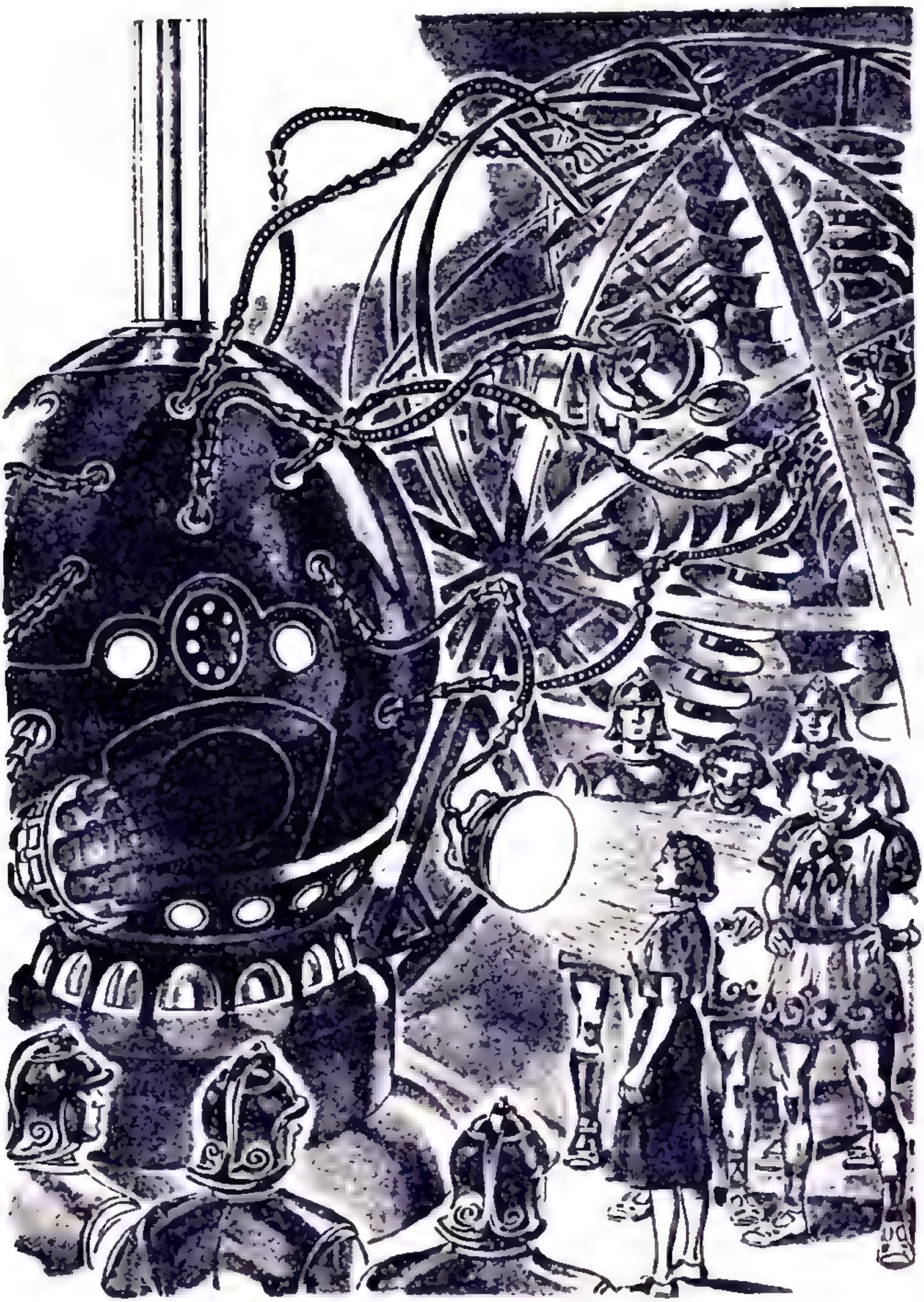
"*Ni, rala,*" said the robot finally in a metallic voice that issued from the orifice under its staring lenses.

And the monstrous metal creature stalked past Crain and Kay, opened a door, and clanked down stone steps.

Crain heard a humming drone, somewhere in the base of the old stone tower. Then, through the open window, he glimpsed something speeding away across the moonlit desert. A thing like a giant, silvery snake, moving with incredible speed. He realized that it was a vehicle, that Kro, the robot, had gone in it.

Dandor, his withered face taut with excitement, began to speak rapidly to Crain. He pointed to objects, and performed little actions, each time speaking a word. He was, quite obviously, endeavoring to teach Crain his own language.

TO Philip Crain's amazement, he learned almost as rapidly as Dandor taught him. Each word, each name, that Dandor uttered, Crain felt engraved at once on his mind. It was as if he were learning a language he



*"Look into my eyes," boomed the massive machine's heavy voice (Chapter XIV)*

once knew, but had forgotten.

Kay clung to him, eyes in fascinated fright on Dandor's face. Her slender body was quivering.

Hours must have passed. One of the two moons had already swiftly set. But now Crain was speaking with Dandor, haltingly, stumblingly, yet with more and more facility.

"The matter-caster on Cholu—there are others there by it, who can operate it at our instructions?" was Dandor's first eager question.

"You mean the machine back on Earth?" Crain asked in bewilderment. "Yes, there are others there."

"Good!" exclaimed the old scientist. Triumph shone in his withered face and glowing eyes. "Now at last the gulf between Bara and Cholu, between this world and that, is bridged!"

"Philip, ask him to send us back to our own world on that thing!" begged Kay.

But when Dandor understood, he shook his head decisively.

"Your bodies would not stand another shock of transmission so soon," he told Crain, who interpreted to her. "You must wait. But you can speak to those others on Cholu."

The old man touched the red button on the switchboard of the matter-caster. A humming arose from it. Dandor motioned for them to speak into the cone above the switchboard.

"Father!" cried Kay frantically. "Father, can you hear me? It's Kay!"

Minutes of silence. Then, from the voice-cone, came John Martin's voice, choked with relief.

"Kay! My God, where are you? We thought you and Philip were annihilated by the blazing force of the machine. Where are you?"

"On another world!"

*Her voice broke. Philip Crain* shouted explanation into the cone. Martin's voice was still more awed when it came again.

"This is incredible! Awful!"

"Tell him," Dandor said quickly, "that he must remain at the matter-caster, ready to turn it on when we call him, and that he must not tell others on Cholu of this."

Crain hoarsely conveyed the old scientist's instructions.

"It's our only chance to get back, Martin," he added. "For you to be there, ready to turn the machine on when we call you."

"All right, Philip, we'll wait here," Martin grimly agreed. "But for God's sake bring Kay back safely!"

"I will!" Crain promised fervently.

Dandor shut off the voice-cone. Then he laid a trembling hand on Philip Crain's shoulder, his eyes shining.

"All is well, and the gulf is bridged!" he exclaimed. "And you, Krayn, have finally succeeded in completing Tharkol's great mission."

"Tharkol?" The name rang again through Philip Crain's memory. "Who is Tharkol?"

"Tharkol was the great hero king of our race," Dandor answered fervently. "The king who, thirty of your years ago, attemped to throw a bridge across the abyss between worlds, by taking a matter-caster to Cholu in a rocket ship. For ages, we of Bara have dreamed of spanning the gulf between this world and Cholu. Finally we devised the matter-casters. They make use of a secret long known to us—a process by which living creatures can be translated into clouds of non-material photons, into electrical energy, and can later be translated back into solid matter, unharmed."

THE old scientist saw the incredulity in Philip Crain's face, and stopped to explain. He may have thought Crain not yet had full command of this Baran language, but already memory had opened it up to Philip Crain as though he had spoken it all his life.

"It is simple enough," Dandor said. "There are three fundamental kinds *of particles*—the electron and the proton, which are particles of matter, and the photon, which is the particle of radiation. The chief difference between them is that the electron and proton possess an electric charge, while the photon possesses an electric field. Electrons and protons can be made into photons, by changing their electric charges to fields.

"When that is done, the solid mat-

ter which the electrons and protons composed becomes a photon cloud, a thing of pure immaterial energy. A human being can be changed thus into a cloud of photons, and the relation between these photons will be the same as that between that being's electrons formerly, and so that person, even as a photon swarm, will retain a shadowy kind of life and consciousness. And the photon swarm can easily be changed back into a solid human being.

"The matter-casters were designed to take advantage of this secret. A human being could step onto one, be converted by a blast of force into an immaterial photon cloud, and that cloud could be projected along a tight beam with the speed of light to another matter-caster, where it would again be solidified.

"We knew if we could get a matter-caster to Cholu, we would have an open road from Bara to Cholu. We would be able to flash from world to world in moments, through the matter-casters. But first, we had to get one of the machines to Cholu, and of course it would have to be taken there physically, in some sort of rocket ship.

"Finally after many trials, we scientists devised a ship that would have a chance to reach Cholu. It would be a suicidally risky attempt. And our great King Tharkol chose to lead that hazardous expedition whose success would mean so much to Bara. Tharkol set forth, thirty of your years ago, with a small crew, on the heroic attempt. He carried a complete matter-caster in his ship.

"All Bara waited tensely for word that Tharkol had reached Cholu safely. In this desert laboratory I, Dandor, waited beside this other matter-caster for Tharkol to speak to me through the voice-cones and report success. But no word came from him. And as the months passed, all Bara believed he had perished, and all mourned our great king who had died in the attempt to achieve this thing for his race.

"Only I, Dandor, never quite gave up hope amid this general despair, but kept watch here through the years, hoping that some day Tharkol would call me. And at last, today, my hope was rewarded. For you called, Krayn —and you turned on the matter-caster on Cholu at my instructions, and at last our age-old dream of a road to Cholu is realized!"

DANDOR'S eyes flashed with almost superhuman happiness.

"The road to Cholu, open at last!" he repeated. "Now comes Bara's great hour of destiny! Now shall our world bloom again and the pitiful doomed ones be freed!"

Philip Crain stared with wild surmise in his eyes.

"Then that wrecked ship we found on Earth," he said hoarsely, "is the ship that Tharkol piloted there thirty years ago, and wrecked in landing. And on that ship—" He asked Dandor tautly: "Have you any picture of Tharkol?"

Dandor nodded, and took from a cabinet a small, curiously perfect statuette.

"This is a stereophot of Tharkol," he said.

The statuette had obviously been made by some process of three-dimensional photography. It was the figure of a giant man, dressed in Baran costume of tunic and cloak, his great head bare. And that powerful, leonine face was unmistakable.

"That," Philip Crain choked, blood roaring in his ears, "is John Crain. My father!"

"Yes," Dandor agreed, his eyes glowing. "I knew it, Krayn, the moment I saw your face. You are the son of Tharkol, our great hero king."

## CHAPTER V

### *The Doubles*

PHILIP CRAIN'S mind rocked at the revelation. John Crain, his father, a great Martian king!

No wonder that John Crain had all his life on Earth been trying to remember a former life! No wonder that the giant man had stared night after

night into the starry skies, dimly trying to remember that other world where he had been a great ruler!

"Your father Tharkol?" Dandor was asking tensely. "He is dead? He must be, since he never called me."

"He died but a few years ago," Crain told the old scientist. "And he never called you, because he had no memory of his life on this world."

He told Dandor the story of his father's amnesia, the mystery that had clouded his life. And he saw tears mist the old scientist's eyes.

"Tharkol, our great king, my friend, dying far away on Cholu without memory of his people and his world," whispered Dandor. "Living among that alien people, while we mourned him here as dead. And you, his son, by a woman of Cholu! It is Fate's work that you, Tharkol's son, should at last have brought success to your father's heroic attempt."

"You said you knew I was Tharkol's son as soon as you saw my face!" Crain said. "But I don't look like him, except for my hair and eyes. How could you know?"

"You will understand that when you meet Lanu, your half-brother, king of Bara," Dandor replied.

"My half-brother?" Philip Crain cried.

Dandor nodded. "Yes, when your great father Tharkol left Bara on his hazardous attempt, he left here his infant son, Lanu. If Tharkol did not return, Lanu was to be king, under my regency, until he attained his majority. He is now the king of Bara. I have sent Kro, my robot servant, to Ingomar to bring Lanu here. I dared not call by ordinary voice-cone, for the message might have been heard by Surp."

"Surp?" Crain repeated, his bewilderment growing. "Who is he?"

Dandor's face clouded. "Surp is a powerful noble who has been intriguing against King Lanu, and has turned the people against him. If Surp knew the king was here in this lonely desert tower, he might seize the chance to put him out of the way. For Surp aspires to the throne himself—the traitor!"

"A Martian king—my half-brother!" Philip Crain gasped, dazed. "And I—half Martian! I can't believe it! Yet all my life I've had vague memories of some other place, some other life."

"Aye, you would have," Dandor said. "For we Barans possess a certain faculty of hereditary memory, passed down from father to son, the synaptic pattern of the father's brain tending to reproduce itself in the son's brain. Had not your father's synaptic mental pattern been snapped by shock, you would have inherited complete remembrance of this world from him."

"Half-Martian!" Philip Crain breathed again.

Kay's face was white, her brown eyes appealing as she looked up at him.

"Philip, this won't make any difference to you—this finding out about your Martian blood?" she asked earnestly. "You'll still want to go back to Earth, with me?"

"Yes, of course," he said slowly. "I'm still dazed. But I promised to get you back safely."

DANDOR had gone to the window, was peering worriedly into the night.

"Kro should have been back with Lanu by now," he muttered. "If Surp has stopped them—" Then his eyes lit. "Here they come now! See their Worm, in the distance?"

Crain peered across the rolling ocher desert, dimmer now, for before long the nearer moon would set. Still a plain of enchantment, infinitely desolate, alive with those strange flickering will-o'-the-wisps that danced drifting to and fro.

Topping a ridge miles away, a great snakelike metal thing gleamed in the moonlight. The serpent-shaped vehicle that Dandor called a Worm. With immense speed it was rocketing across the sands toward the old stone tower.

They heard it stop beneath, then heard steps coming up the stone stairs. The heavy, clanking tread of the robot, and the lighter step of a man.

Philip Crain's tall body tautened. His half-brother, king of this other world, was approaching!

Lanu entered the room first. He was

a tall young man, tall as Philip Crain. His dress was a brilliant crimson cloak over a white tunic. High strapped sandals of soft leather were on his feet, and his blue-black hair was bare. At his belt hung a silver tube several inches long.

"Dandor!" he cried as he entered. "Kro told me that the great plan has finally succeeded!" His voice rang exultant. "If it has, it means new life for our dying world! And it means the end of Surp and his traitorous schemes!"

Lanu was suddenly stricken silent as he saw Philip Crain. His dark eyes bulged as he looked on the Earthman's face. Philip Crain, too, was frozen with the rigidity of utter stupefaction as he looked at his royal half-brother. And from Kay came an incredulous cry.

"Philip! It's—*you!*"

The face of Lanu, king of Bara, was identical with the face of Philip Crain!

It was more arrogant and petulant in expression, a little weaker in outline, but otherwise the mirror of Crain's face. The two half-brothers were doubles.

"What devil's magic is this?" cried Lanu, his hand darting to the weapon at his belt. "This man—he's *me!*"

Dandor's withered face wore a smile. The old scientist looked at the stupefied Crain.

"Now you understand why I knew you were Tharkol's son, as soon as I saw you," he said.

"My father's son?" Lanu cried amazedly. "You mean that his fellow is my brother?"

"Your half-brother," Dandor corrected.

Rapidly, the old scientist explained.

And Philip Crain, during that explanation, stood like a man amazed. This Martian ruler, his half-brother, and his double! It added the final touch of incredibility to all that Crain had experienced.

KAY was staring from one to the other of the two men, as though unable to believe her eyes. The one in stained khaki Earth clothes; the other in royal Martian garb. But

*The robot grasped Crain (Chapter IV)*

facially, physically, exact replicas of each other.

"A half-breed brother from Cholu, eh?" Lanu muttered. Then he told Crain suspiciously, "You understand that I am the eldest—that I rule Bara by right?"

Philip Crain nodded, spoke with difficulty.

"I've no ambitions to rule Bara."

"We shall find some place for you at the court," Lanu continued patronizingly to Crain, "even though you are only half of Baran blood. And you'll be useful to us in helping operate the Choluan end of the great plan."

Crain did not understand the reference. But Lanu was continuing exultantly, his face lit with vengeful triumph.

"Now I will crush Surp and all his schemes! The people will turn from Surp back to me, when they hear that I have succeeded in achieving the great plan at last! That I am going to bring water to Bara from Cholu!"

"Water from Cholu—from Earth?" Philip Crain cried incredulously. "Do you mean that that is your great plan—to take water from Earth for this world?"

"Aye, that is the great plan, Krayn," Dandor said. "The plan your father risked his life for." He rushed on in eager explanation. "This planet Bara has long been a dying, drying world. For ages, its hydrosphere has been steadily deserting it. For it is a law of Nature that small worlds, with their lesser gravitation, cannot hold the dancing molecules of their air and water envelopes as well as can larger worlds where the molecular velocity of escape is higher.

"Once, long ago, we Barans numbered hundreds of millions. We had built great cities upon the shores of our seas, had risen to a proud peak of civilization. But we could not master Nature. We could not halt the drying of our world. Slowly, steadily, remorselessly, the seas shrank as our water was dissipated into space.

"The seas shrank to small lakes, and then those dwindled. Deserts appeared where had been fertile lands. And always the deserts spread, the fertile lands diminished. Bara could not support all the numbers of our people. Every year, many thousands of our race had to be—disposed of, so that the rest of the race could live.

"We moved to cities near the shrinking snows of the north and south polar caps, our last water supply. Great underground aqueducts were built to transmit that precious water, without loss by evaporation, to our cities. But the snow-caps have steadily failed too, and now our population has been reduced to less than a million people, and our scores of cities to five cities only.

"But if water could be brought in great quantities from another world, it would revivify our dying planet. It would make Bara green and fertile, able once more to support a great race. It would make possible the release of the millions on millions of doomed ones, who pray through the years to live again."

The doomed ones? Philip Crain could not understand. But before he could ask, Dandor was speaking on.

"LONG ago, we Barans saw in the world Cholu a source of the water we needed. We could perceive that on Cholu were vast seas. Rutha, the second planet from the Sun, we knew to possess much water also, but it was so admixed with certain chemical elements that, if brought to our world, would set up a reaction that would produce a poison that would vitiate our whole planet. But Cholu possessed pure water, and in more than sufficient quantities to revive our world.

"That is the dream that we have cherished for ages! To hurl trillions of tons of water from Cholu, across the void to Bara! It can be done. All that is needed is to set up a great number of matter-casters along the oceans of Cholu, and they will hurl ceaseless streams of water, in the form of dematerialized photon swarms, across the gulf to this world.

"That is why we have hoped to get a matter-caster to Cholu. So that men and materials could pour through—to that other world, and build many matter-casters, and start the waters of

that world streaming across space to Bara. That is why your father Tharkol risked his life to take a matter-caster to Cholu. He knew that it meant salvation for this world!"

Philip Crain's lean face was a stiff mask of conflicting emotions, as the old scientist finished.

"And you expect me to help you in this plan?" he cried. "Why, it would shrink Earth's seas to ponds, would condemn my own world to water starvation, would bring disaster on Earth and my people!"

"Your people?" exclaimed Dandor, amazedly. "Those Choluans are not your people, Krayn. Your people are your father's race, the Baran race, whose royal blood flows in your veins."

"But I'm still half Earthling!" Philip Crain exclaimed. "And to cause such a disaster to Earth—" He stopped, his mind a seething chaos of bewilderment.

This plan that would rob Earth of water, to revivify dying Mars — he couldn't let that be carried out! The green, smiling Earth made a desert, a disaster-stricken world—no!

Yet, even with that resolve firm in his mind, Crain was strongly conscious of the Martian blood in his veins. And his father had risked death, for this plan. If he, Philip Crain, was loyal to Earth, as he meant to be, he would be disloyal to his Martian blood.

Lanu was watching him narrowly, suspicion on his face.

"I fear this half-brother of mine has too much alien blood to be a true Baran," he said.

"He will be a loyal son of Mars," Dandor assured the young king. "He is stunned by all he has learned, now, and no wonder. But be sure that no son of Tharkol will ever prove enemy to his father's people."

He turned to Philip Crain and Kay. "You need rest, now," he said solicitously. "Later, we will talk of these things."

Crain could see that the old scientist was confident of winning him over. But Lanu, with the face so weirdly identical with his own, was still suspicious.

Dandor spoke a few brief words to the robot, Kro. The great automaton answered, metallically, "Yes, Master."

"Kro will take you to a chamber where you can rest," Dandor told Crain.

CRAIN had to support Kay as they followed the robot. She seemed unable to walk steadily against this lesser gravitation, and her eyes showed her giddiness from its physical effects. Puzzled, she had not been able to understand all the astounding things that had been told to Crain, until now quickly he explained to her, in answer to her swift, nervous questions. She took it valiantly, though—at first—as Crain had known she would.

Crain himself found his muscles attuning themselves with amazing swiftness to the new conditions. And the cold, pungent air no longer rasped his lungs.

The clanking robot led them down the dark stone stair, through a lighted hangar or garage in the base of the tower where two of the great Worms, or snakelike vehicles, stood. Under this was a subterranean level of dry, well lighted living rooms. Kro opened the door of one, and then clanked away.

The room was a square stone chamber lighted by one of the little artificial suns in the ceiling. The metal furniture was simple — a couch and chairs, silk-covered, and a table.

Kay sank down into a chair, and covered her face with her hands.

"Millions of miles from Earth," she whispered shakenly. "We'll never get back—never!"

"Buck up, Kay," begged Philip Crain. "Dandor will send us back, when we've rested."

She shook her head, her brown eyes strangely bright as she uncovered her face.

"No, they won't send us back," she whispered. "They want to win you over to that horrible plan of looting Earth of its water. They think, because your father was a Martian, you'll join them. You won't, will you, Philip?"

"Of course not," he answered slow-

ly. "I couldn't do a thing like that."

"I'm afraid of your forgetting Earth, Philip," she said chokingly. "You're so exactly like your half-brother, so much a Martian in appearance."

"You needn't fear me being disloyal to Earth," he told her; then his eyes narrowed. "If we could get back up to the matter-caster in the tower room, and hurl ourselves back to Earth, we could destroy the matter-caster on Earth and cut the Martians off from it forever."

"Can we?" Kay asked hopefully.

"Not now," he answered. "I might overcome Dandor, but that robot — he'd be too much for me. Maybe later."

Crain's face was pale with emotion. He must avert disaster to Earth—and in doing so, he would doom his father's world!

Through the silent chamber drifted little floating flickers of hazy light, such as he had seen dancing in myriads outside.

"What are they?" Kay asked puzzled. "They seem able to pass right through the stone walls."

"They're probably just some electrical phenomenon peculiar to this world—" Crain started to say when a sudden loud burst of shouts from the tower brought him and Kay both to their feet.

Men were pouring up the tower —fiercely yelling men. There was the clash of metal against metal from overhead, then choking death-screams, echoing hideously.

## CHAPTER VI

### *Dandor's Plan*

KAY'S hand flew to her throat. With those ghastly death-screams had come a chorus of furious cries of rage.

"Fighting up there!" Philip Crain exclaimed, his tall form stiffening. He raced to the door of the chamber. "You wait here, Kay!"

But she reached his side before he could open the door.

"No, Philip, I'm going with you! I won't be left alone in this terrible place."

"You can't go!" he cried. "Please, Kay—"

Crain stopped, listening. There had come a loud shout of triumph from above, and then the noise of men racing hastily down from the tower chamber. Crain flung open the door and rushed down the little corridor toward the stair, with Kay close behind him.

Outside, in the silvery light of the single moon now setting, a half-dozen men were climbing hastily into a big, snakelike Worm that stood waiting. Even as Crain emerged, the serpent-shaped vehicle started with loud drone and sped away across the moonlit desert, through the dancing will-o'-the-wisps.

"They've gone!" Crain cried. "Something's happened — those screams—"

He raced up the stone stairs toward the tower. At the entrance to Dandor's brightly lighted laboratory, he stopped, appalled.

Two men lay dead across the doorway, Baran soldiers dressed in tunics of woven scales and caplike silver helmets. Their faces had been hideously battered in.

Another dead Baran lay inside the laboratory. And beside that corpse sprawled the enormous metal form of Kro. A section of the robot's torso had been eaten away in some manner, exposing the intricate bulbs, wires and transformers of his vitals.

Old Dandor was just staggering to his feet. The scientist's forehead streamed blood from a bad wound, and his wrinkled face was ghastly. He gripped a long silver tube in his shaking hand.

"What happened?" cried Philip Crain, while Kay stared over his shoulder in horror.

"Lanu!" croaked the swaying old man. "They've taken him! They disabled Kro with a gas-gun, after he'd killed three of them, and they struck me down and left me for dead."

"The king — kidnaped?" Philip Crain exclaimed. "Who did it?"

"Surp's men," choked the old scientist. "They were masked, but I recognized the voice of Ligor, that hell-spawned son of Surp. It was he who struck me down."

"Surp?" repeated Crain. "The noble you told me about, who wants to supplant Lanu on the throne?"

"Yes," answered Dandor. He was *tottering, a terrible fear in his eyes.* "Surp's spies must have seen Lanu come here with Kro and reported to their master. He sent Ligor and the others to kidnap the king. And now Surp will strike to seize the throne!"

Utter agony of spirit was in Dandor's face. Crain sprang toward him with quick sympathy.

"Get me the vial of orange liquid in that cabinet," said Dandor thickly, motioning with his weapon.

CRAIN hurriedly obeyed. He saw Dandor wince with pain as he poured the orange fluid into the gash on his temple. But with incredible speed, the wound dried and closed. In a few minutes, it was a brown scar.

"Our most powerful therapeutic," muttered the scientist. "It has the power to clot blood and dehydrate surface tissue almost immediately. Now stand aside, while I rid ourselves of these dead with the gas-gun."

Crain drew Kay back, as the old man pointed the silver tube in his hand. Three tiny clouds of green vapor puffed from the tube, striking the three bodies. They instantly disintegrated, crumbled, vanished—and part of the floor with them.

"Good Lord!" Crain exclaimed, astounded by the deadly power of the weapon. "What kind of gas is that?"

"It is a secret synthetic gas that acts as an instant *solvent* of almost all substances," Dandor said. "Only the specially synthesized metal of these tubes can resist its dissolving action. We store it in the tube under tremendous pressure, and it forms our most powerful weapon."

Dandor's strength seemed to be returning now. He bent over the motionless metal body of the faithful robot.

"Only a few of Kro's electrical nerve-fibers are damaged," he muttered. "Their gas-guns did not hit him squarely."

Swiftly he began working with deft fingers on the complexities of the robot's interior mechanism. Then with a tiny flame-jet from a small machine, he welded a new plate over it.

Kro stirred his huge metal limbs, and rose to his feet with a ponderous clanking. The robot seemed unharmed by his experience.

"Are you hurt, Master?" he asked metallically, his expressionless lens-eyes fixed on the old man.

"Not now, Kro," Dandor answered,

[*Turn Page*]

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but agony was in his voice as he turned to Crain and Kay. "I wish that Ligor *had* killed me! Better far to be dead than live to see that upstart Surp ascend the throne of Bara!"

"What will Surp do with Lanu?" Crain asked tensely. "Kill him?"

He was feeling a surge of strange emotion. Lanu, arrogant and spoiled as he had seemed was, after all, his half-brother.

"No, Surp is too crafty to kill Lanu at once," Dandor answered miserably. "Tomorrow morning in Ingomar, capital of Bara, is a great annual ceremony—the Drawing of the Lots. The king must preside at that ceremony. When Lanu does not appear, Surp will undoubtedly declare the king missing and proclaim himself regent.

"Once regent, he will quickly consolidate his power. When he feels he has the reins safely in his hands, then he will have Lanu killed. Until then, he will keep Lanu a prisoner in some secret place, so that should anything go wrong with his plans, he can use Lanu as a hostage to save his skin."

He paused a moment, with drooped head, then added achingly: "And the danger of Surp succeeding is greater, because Lanu knows that the gulf between Bara and Cholu is now bridged. If Surp learns that, he will tell the people that *he* has succeeded in bringing the great plan to fruition. *He* will lead the Baran forces to Cholu, and then he will be firm on the throne, for the people will worship anyone who finally brings new water to Bara."

PHILIP CRAIN was appalled. This ruthless noble Surp, carrying out that ominous plan, speeding across the void with Martian forces, to loot Earth of water! Using all the weapons of Martian science, the Worms and gas-guns and probably many more, against Earth when it resisted the thievery of its water!

For a wild moment, Crain thought of forcing Dandor to send him and Kay back to Earth, so that they could destroy the matter-caster there. But he realized that was impossible. Dandor still had the deadly gas-gun in his hand, and the robot Kro was standing ready to act. Force could achieve nothing.

"Can't you go to Ingomar and expose Surp as the kidnaper of the king?" he demanded of Dandor.

The old scientist shook his white head. "It would be useless. Surp would simply deny it, and what proof would I have? The men in the raiding party were all masked." His voice quivered. "No, it means the end of Lanu's rule, if he does not appear tomorrow at the Drawing of Lots. The end of the long line of the rightful rulers of Bara."

Dandor's voice trailed off as his great black eyes widened. He stared at Philip Crain as though he saw him for the first time.

"Krayn!" he shouted exultantly. "Why did I not think of it before! A way to save the throne for Lanu! He cannot appear for the Drawing of the Lots tomorrow—but the king can—*you* can! You can impersonate him! You are almost an exact double of your half-brother. You can hold the throne for him until we are able to find and rescue him!"

## CHAPTER VII

### *Under Martian Moons*

PHILIP CRAIN reeled from the staggering shock of the incredibly audacious thing Dandor was suggesting.

"To double for Lanu—for the king of this world?" he cried, aghast. "No, I couldn't do it!"

"You can!" Dandor insisted fiercely. "And no one on Bara, except us, knows that Lanu has such an identical half-brother. No one will dream of questioning your identity."

"But I, a man from another world, to dare such an impersonation!" Crain cried. "Speaking in a language which I have only just learned! It's impossible!"

"You speak the Aran language now as well as Lanu!" Dandor declared. "For you did not *learn* our tongue to-

night, you *remembered* it. Complete knowledge of it was in the hereditary synaptic pattern of your brain, and I recalled that."

"Still, I'm utterly ignorant of your world and customs," Crain declared. "I'd betray myself in a moment."

"I'll be at your side to coach you," Dandor assured him eagerly.

"Yet Surp and his son Ligor—they hold the real Lanu prisoner somewhere," Crain reminded. "They would know that I was an impostor."

"They'll know, yes—but they won't dare tell," Dandor retorted. "They would not admit they had kidnaped the king."

"Don't do what he asks, Philip!" pleaded Kay, clinging to his arm. "Whatever it is! Don't let them make a Martian of you!"

Philip Crain's brain was spinning as he considered a new idea that had rushed into his mind. This great imposture that Dandor proposed—it might give him a chance to avert the thing the Martians planned to do to Earth.

Crain knew that as a lone stranger, with a whole world pitted against him, he could not hope to thwart the great Martian plan. But posing as the Martian king, holding the reins of power, he might be able to thwart the Martian dream. And he must do that. For, strong as was the pull of his Martian blood, he could not let disaster come to Earth.

Swiftly, he decided to take this one chance open to him.

"I'll do it!" he exclaimed.

"I knew Tharkol's son would not fail me!" Dandor cried joyfully.

Kay's eyes were wide with stunned disbelief as Crain hastily explained to her, translating what Dandor had said.

"You're becoming one of them—becoming a traitor to Earth!" she angrily accused Crain.

"It's for Earth's sake I'm doing it, Kay!" he told her swiftly in English. "It's the only way open to me to defend our world."

"Will it help Earth for you to join her attackers?" she flamed. "You're betraying your world, for a throne! You're not the Philip Crain I knew! You're one of these Martians—"

She swayed, almost fell, her face colorless. Crain sprang anxiously to support her.

"She is feeling the effect of the lesser gravitation and thinner air of Bara," Dandor said quickly. "You, who are half of Baran blood, have not been affected so much."

He made Kay swallow a few drops of milky fluid, and led her to a chair. She sat, her face in her hands.

"Now we must start for Ingomar!" Dandor exclaimed. "The night is wearing away and the Drawing of the Lots takes place soon after sunrise. But first your garments must be changed."

HE took from a cabinet a suit of the silken Martian garments. In a small closet Philip Crain divested himself of his khaki clothes and boots and put on the strange dress. There were white silk sleeveless shirt and shorts, a short white tunic belted over them, high, soft leather sandals, and Lanu's brilliant crimson cloak.

"Lucky that the kidnapers left Lanu's cloak here," Dandor muttered. "The king must wear the royal crimson."

The old man gasped when Crain finally straightened for inspection.

"You're the image of Lanu!"

Crain glimpsed himself in a wall mirror. He stiffened. Was this he—this tall, resplendent figure, crimson cloak flaring behind him, dark, lean face proudly lifted?

"Tharkol's blood!" Dandor was saying, his eyes glistening. "It shows in you, Krayan. You look every inch a king."

Sudden excitement throbbed like strong wine through Philip Crain's blood. He, the lonely young engineer—a king on Mars! And suddenly he felt a heady tide of confidence and authority. After all, he was Tharkol's son.

His vaulting emotions chilled. He was letting his Martian blood get the upper hand. And that must not happen. He must keep remembering Earth, and what threatened Earth. That was his one reason for playing

this dangerous game of impersonation. "Start the Worm, Kro," Dandor ordered. "We must hasten."

The great robot clanked down the stairs. Crain put a Martian cloak around Kay's shivering shoulders, and pulled the girl gently to her feet.

Kay made no resistance, but her brown eyes were bitter as they met his. He knew she was hating him for his apparent desertion to the Martains.

The three emerged from the stone tower into the sharp chill of the open air. Both moons, which Dandor had called Kabu and Noru, were now setting, one westward, the other eastward.

The waiting Worm was a flexible, annulated cylinder of silver metal, eight feet in diameter, twenty feet long. Its ring-shaped sections were fastened by sliding joints so that they could contract or expand longitudinally.

"It advances over the ground just as a real worm crawls," Dandor explained, "by expanding the fore part of its body straight ahead, then contracting it, pulling the rest of the body after it. This motion, repeated with great swiftness, gives the Worm great speed. Only such a vehicle as this is practical on Bara, where the deep desert sands would choke wheels and where the atmosphere is too thin for practical flying."

"Where does its power come from?" Crain asked, staring at the thing.

"From the sun," Dandor answered surprisingly. "We Barans have for sole source of power the photo-electric effect of the sun's rays. Our mechanisms are all so constructed that when the sunlight strikes them it builds up photo-electric energy in them which is automatically stored as a potential in the machine itself. The matter-casters operate from the same power."

They entered by a small door in the side of the Worm. Metal chairs swung in gimbals, inside. Kro already sat in the control-chair by the window in the nose of the vehicle. A hidden motor in the rear was droning.

"To Ingomar!" the scientist ordered Kro.

"Yes, Master," answered the robot flatly.

KRO jerked back a lever and the strange vehicle began to slide smoothly over the desert. There was no bumping, for the flexible body adapted itself to the ground. Soon the worm was gliding at high speed across the moonlit plain of sand.

Over this vast plain, dancing, drifting, floating like little ghosts of light, hung the numberless will-o'-the-wisps that Crain had noticed before. Like a scattered host of glowing fire-flies, they wandered.

"What are those shining things?" he asked Dandor. "Some kind of electrical phenomenon?"

At the question, there came into Dandor's face a dim horror.

"They are—the Electrae," he answered, an overwhelming sadness and dread in his haunted eyes, as he gazed at the drifting things of light.

"The Electrae?" repeated Crain, unable to comprehend the dark horror he saw in Dandor's face.

Before Dandor could answer, the robot Kro turned and addressed him.

"The sun is about to rise, Master, and we will reach Ingomar soon. Where in the city do we go?"

"Straight to the royal palace, Kro," ordered the old man. "To the rear court."

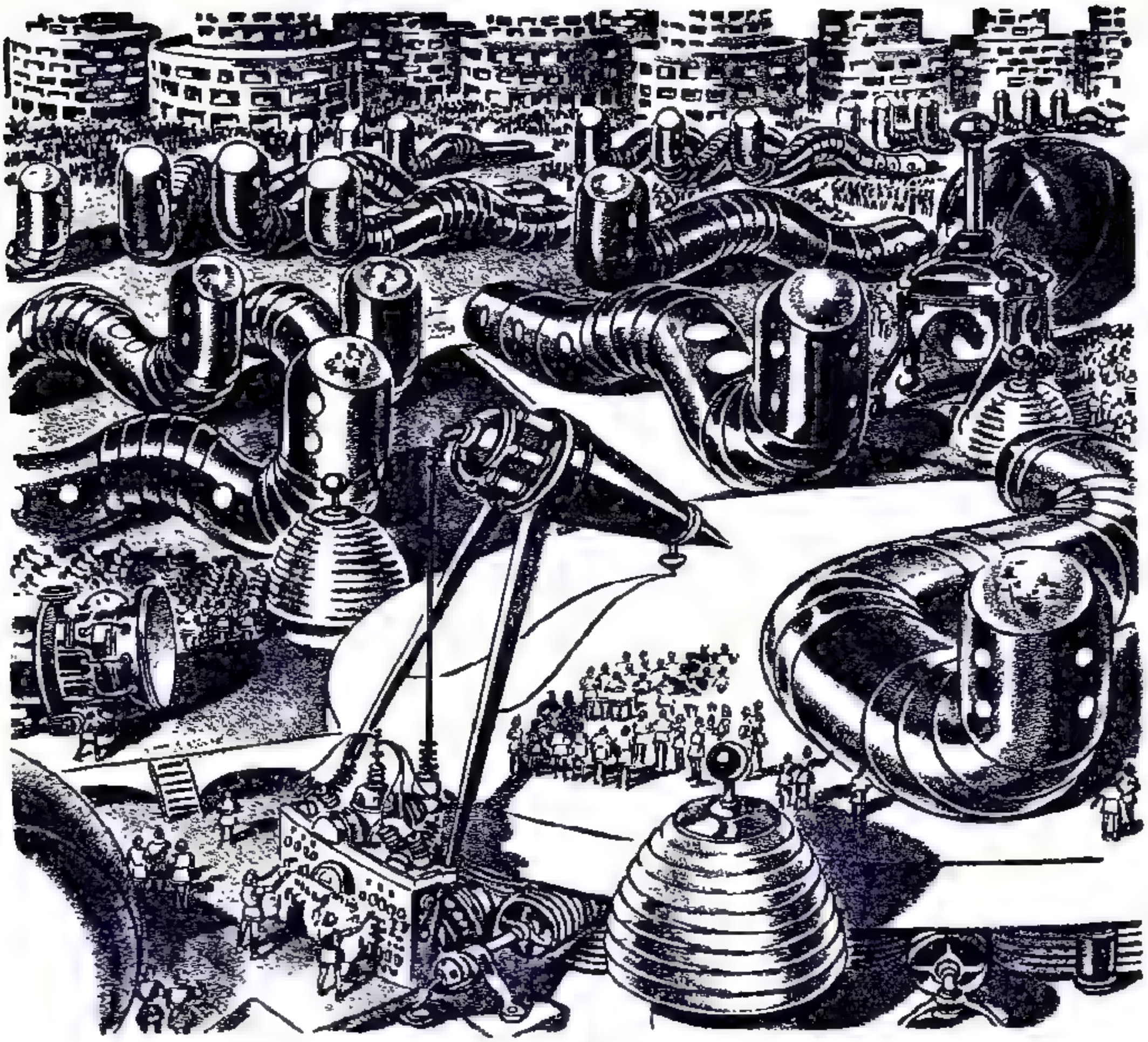
Philip Crain stared at the huge metal figure that sat so stiffly, driving the speeding Worm and peering with glassy, emotionless lens-eyes out through the window.

"Is Kro really only a machine?" he asked Dandor incredulously. "He seems so intelligent, so human—"

"He is but a robot, whom I myself constructed years ago," Dandor assured him. "He has been the most faithful of servants to me. Because of my great services to the royal family, Kro was permitted to exist when all the other robots on Bara were destroyed some years ago."

"Why were they all destroyed?" Crain asked wonderingly.

Dandor explained. "The people had a bad experience that caused them to be apprehensive of robots. A com-



*Thousands of men and Worms were shot from the great matter-caster in the plaza (Chapter XVIII)*

mittee of scientists, of which I was chief, had constructed a special thinking-robot, a great metal brain with more than human aptitude in mechanical matters. We hoped that this Brain would be able to help us design a rocket ship that would reach Cholu safely. Because, for vital reasons, we had specialized in atomic physics for so many generations that we had neglected mechanical science.

"The Brain did, in fact, help us greatly in the design of the rocket ship in which your father Tharkol flew to Cholu. But shortly after this, the Brain showed signs of feeling that it was superior to men, and its cunning and its aptitude in invention were so great that we decided that it and all other robots should be destroyed. They were all taken into a remote part of the desert, and destroyed with gas-guns."

Philip Crain glanced at the white-faced girl in the chair behind him.

"KAY, you feel better now?" he asked anxiously.

"What difference does it make to you?" she retorted bitterly. "You and I—we're not of the same races any more, since you chose to become a Martian."

"Kay, please—" Crain began, but seeing that he could not now convince her, he gave up and stared moodily ahead.

The sun was rising. It seemed

small and shrunken to Crain's eyes, yet blazed brightly in the cloudless sky. Under its flaring light, the sandy wastes stretched in brooding, somber crimson, marching to the horizon in great ridges and dunes. It was an arid, deathly landscape.

Upon this limitless red desert, the hosts of drifting will-o'-the-wisps that Dandor had called the Electrae, and that he had regarded with such mysterious dread, were visible only as vague flickers in the sunlight.

Crain glimpsed green lands ahead—a narrow fertile region that he knew must overlay one of the hidden aqueducts that brought water from the polar snow-cap. When they reached the fertile land, Kro drove the Worm onto a smooth road of pale red stone that led through the cultivated strip.

On either side of them were intensively cultivated fields of waving green grain, and low bushes of pale yellow fruits. No workers were visible. Nor was any animal life, except such few insects as would be needed for pollenizing. Long ago, Crain guessed, the struggle for existence on dying Mars must have forced the elimination of such comparatively wasteful food-raising devices as domestic animals.

"This is the fertile strip in which lies the capital Ingomar," Dandor was saying. "Pitifully small, it is. No wonder that each year we must have the Drawing of the Lots."

Kro pointed his great metal arm ahead.

"Ingomar," rasped the robot.

Ingomar! Philip Crain's heart beat faster as he peered ahead. The city where he must carry out his great imposture, for Earth's sake. The city where his father had reigned as king, and where today he must impersonate a king.

"Aye, Ingomar, our capital and one of our five last cities," Dandor was saying somberly. "All the others are now but ruins in the desert, tenanted only by the Electrae."

Dim and rosy upon the horizon reared a cluster of incredibly slender and lofty towers. It looked like an elfin city out of legend, to the Earthly eyes of Philip Crain and Kay. And as they drew closer, the splendor of Ingomar seemed to grow greater. Built all of pale red stones, it was a rosy city of the dawn.

INGOMAR covered several dozens of square miles. Many buildings were no more than three or four stories high. But everywhere from these lower buildings aspired the slender towers, some of them two or three hundred feet high. And the towers were ringed with giddy spiral stairways and wide, unsupported balconies that gave the whole rose-colored metropolis its elfin, fairy appearance.

Crain realized that this fairylike architecture was possible on Mars because of the planet's lesser gravitation. Yet it still seemed to him that those high balconies and unsupported spiral stairs must crash at any moment, that the whole city must fall of its own weight.

Far within the forest of fairy towers rose two huge spires, topping all others, pale red columns tipped with flashing silver. Kro was driving the Worm straight through the wide, smooth-paved streets toward them. And they saw no human being in all the streets and shops and stalls.

"The place looks utterly deserted," said Crain in astonishment.

"The people are already gathered outside the palace for the Drawing of the Lots!" Dandor cried. "Hurry, Kro—hurry!"

## CHAPTER VIII

### *The Drawing of the Lots*

WHILE the Worm shot with accelerated speed through the deserted streets, Philip Crain's heart pounded. Each moment, this impersonation that he had undertaken seemed more fantastic and impossible of success. And Dandor, too, seemed wrought to a high pitch of tenseness.

Many of the stone buildings of this city of elfin, rosy towers had an unoccupied, abandoned look. Whole sec-

tions of the city were apparently uninhabited, beginning to crumble; mute evidence of the dwindling of the Martian race and their dying world.

"What is this Drawing of the Lots at which I must preside?" Crain asked Dandor, suddenly remembering that in all the other excitement he had not thought to ask.

"No time to explain it now — we near the palace!" the old scientist answered tautly. "Now comes the test of our scheme." He added urgently, "I will be at your side, telling you what to say and do, every moment. But be sure that your mien is proud and haughty."

The twin lofty towers of the palace lay now to their right as they circled to approach it from the rear. The palace itself was an enormous oblong structure of rosy stone, a half-dozen stories high, the two soaring towers rising from its east and west wings. Flanking these wing lay green gardens, with small trees and shrubs of blooming flowers.

The broad facade of the palace faced upon an immense oval plaza in which milled a vast throng of people. At the south end of this oval plaza, facing the great palace, rose another massive structure; a domed round building with walls of immense thickness.

The Worm, with Kro expertly handling its controls, approached the rear of the palace and passed through opened gates of silver metal into a paved court. Baran soldiers stood on guard here, dressed in tunics of silver scales and gleaming helmets, and wearing gas-guns. They sprang to attention as Crain emerged from the Worm.

Dandor and Kay followed Crain. In the white silk cloak that Dandor had put on her shoulders the girl looked as much Baran as her companions. The great robot clanked after them.

"Through the left door, and down the corridor inside," muttered Dandor to Crain. "Disregard the sentries.

Philip Crain strode forward, scarlet cloak swirling brilliantly behind his tall figure, his lean, dark face gazing impatiently ahead as though not seeing the sentries.

The guards saluted with their gas-guns. And an officer, bowing to Crain, spoke respectfully.

"The ceremony is ready to begin, Highness."

Philip Crain nodded and strode on through the door Dandor had indicated. He found himself in a wide, rosy corridor aglow with the light of tiny artificial suns in its ceiling. Down this he went, Dandor hurrying Kay after him, the huge, clanking robot following imperturbably.

"The next door to the right—the lift-cage of the west tower," Dandor said in a low voice.

The lift-cage was a small cylindrical metal chamber. Inside it, Dandor touched a stud. The cage shot upward, with a swift, smooth and soundless rush. It came to rest, locking automatically, at a level high in the tower. This whole floor of the tower was a single ring-shaped apartment.

"YOU have passed muster so far!" declared Dandor exultantly. "Now if you can deceive the nobles and the people, all will be well for the time being."

Philip Crain wiped damp perspiration from his brow. "I thought they'd challenge me any moment!" he exclaimed.

"This is my private suite in the palace," Dandor explained. "We will leave the girl here, under Kro's watch."

"So I am your prisoner now, Philip?" the white-faced Kay said bitterly.

"Please, Kay, try to reserve judgment on what I'm doing," he pleaded. "I tell you, I'm only thinking of Earth in all this—working for our world."

Kay turned away, unbelieving. Though Crain had spoken to her in English, he saw that Dandor was watching him, so he desisted.

The rooms of the scientist's ring-shaped apartment were large, lighted by tall windows with silver gratings. The rooms were obviously the old man's laboratory here. The others were hung in bright silks, and the

metal furniture was gracefully beautiful.

The windows on one side looked down upon the great plaza. Looking down at the crowd that packed it, Crain felt himself shrinking from this adventure. All those tens of thousands, waiting for their king! And he was to deceive them!

"Now for the ceremony!" Dandor cried. "I crave to see Surp's face, when you make your appearance."

"We can't fool them all," Crain muttered, his face tense.

"You cannot back out now," Dandor told him strongly. "Come—we must not delay longer."

They stepped back into the lift-cage, and shot downward. As they emerged into the corridor upon the ground level, silken-clad chamberlains hurried forward. Dandor waved them aside, and, without seeming to do so, led Crain forward through the palace.

Crain got but glimpses of great, majestic halls hung with the royal crimson, antechambers and broad corridors leading in all directions, balconies opening upon the green gardens. And even here there floated the firefly, immaterial things that Dandor had called the Electrae, drifting and dancing through passages and rooms.

Then Crain found himself with Dandor in a small antechamber. A door in front of them was pierced with a tiny window through which came a shaft of bright sunlight.

"Wait," Dandor commanded. "It is not yet the moment for the king to appear. The nobles are still gathering."

Philip Crain peered through the tiny aperture. Just outside the door lay a broad stone terrace, flanked by solid ranks of soldiery, their helmets gleaming. On the terrace were gathering the nobles of Bara—brilliantly cloaked men and women in silks of every color except crimson, the women wearing long gowns instead of tunics under their cloaks.

One great object on the terrace challenged Philip Crain's attention. It was a metal pedestal upon which rested two huge, transparent spheres, whose curving edges touched. One sphere was a quarter filled with a mass of tiny black balls, and the other sphere was empty.

BEYOND the terrace stood the great throng of people. Men, women and children—mostly dressed in cloaks and tunics and gowns of plain white or gray. Each man wore a small black badge upon his breast. And this great mass of humanity, unlike the nobles, stood in an utter dead silence. The two transparent spheres on the terrace were holding their attention.

"See—Surp and Ligor come!" whispered Dandor, indicating two green-cloaked nobles who were coming up onto the terrace with a numerous retinue.

Surp, the ambitious, intriguing noble who aspired to the throne!

Surp was a massive figure, with a face that combined brutality and the shrewdness of experience, a hard, grizzled mask stamped with relentless force. Ligor, his slender, indolent-looking son, was a handsome, drooping-eyed and foppish-looking young man.

"That devil's cub Ligor will be surprised too to see *me*, whom he thinks he slew," Dandor exulted. "Be not deceived by his foppish appearance, Krayn—he is a deadly antagonist."

"They look damned confident," Crain muttered. "And listen to the people!"

As Surp appeared on the terrace, a low chorus of voices hailed him from the plaza. It was unmistakably a chorus of approval.

Surp's massive, brutal face and shrewd eyes glistened with satisfaction. And Ligor's insolent eyes were complacent.

"I cannot guess by what means Surp has won the people over so far," Dandor muttered. "Every year, it seems, the supporters of Surp grow more numerous and the supporters of Lanu fewer."

A chamberlain out on the terrace raised his voice.

"The Princess Mara!"

The girl who was coming out of the palace, followed by two women, wore the crimson of the royal house — a

flaming scarlet cloak over a silken white gown that reached to her ankles. She wore white leather sandals, and her dark head was bare.

Crain thought he had never seen so proud, so vital a figure. Her beautiful, clear olive face was composed, but he detected shadows in her blue-black eyes. She took her position, and faced the crowd in silence. The dandified Ligor leaned and spoke to her eagerly.

"Princess Mara is Lanu's financée—*your* fiancèe, for the time being," Dandor was saying tensely. "You are supposed to be madly in love with her. Remember that."

"Good Lord!" exclaimed Crain, aghast. "You didn't tell me that—"

Blast of silver trumpets shattered his words. And after them the loud voice of a chamberlain.

"The King!"

The eyes of all the vast crowd, and of all the brilliant nobles on the terrace, turned toward the door behind which Philip Crain and Dandor stood.

"Remember, speak as I whisper to you," Dandor said.

Crain caught the old scientist's arm, kept him from opening the door. His courage was suddenly gone.

"I can't do it!" he said hoarsely. "Not before that whole crowd and court! They'll know I'm not Lanu!"

"You must do it!" exclaimed Dandor frantically. "Think of what depends on it—your brother's throne. See, even now, Surp advances to declare himself regent!"

THERE had been a low whisper among the nobles and the crowd as the king failed to appear. The massive figure of Surp was advancing to the center of the terrace, a triumphant gleam in the noble's eyes.

That triumph in Surp's hard face fired Philip Crain's blood, and steadied his quivering nerves. He couldn't tamely allow the upstart noble to seize the throne of his father! And Crain was suddenly remembering, too, all that depended on him—the Martian threat to Earth that he must thwart.

"Since King Lanu does not appear—" Surp started to announce loudly to the puzzled crowd, and Philip Crain flung open the door. He strode out onto the terrace in the sunlight, his dark head haughtily high.

"The King!" came a shout of greeting from the crowd, though it sounded forced and hollow. The nobles bowed.

All except Surp and Ligor. They stared as though they could not believe their eyes. Ligor's jaw was dropping ludicrously, and Surp's massive face was white.

"Lanu! And Dandor!" ejaculated Surp. "But you can't—"

Philip Crain felt a sudden rush of confidence, of hard authority, as he faced the conspiring noble. In that moment he was Tharkol's son.

"You were about to speak to the crowd, Surp," he said ironically. "What do you wish to say?"

"Nothing, Highness," stammered Surp, his face grey with shock. "I thought—"

"Then why not go back to your place with the other?" said Crain.

The hard, sharp tone of his voice, the flash of his eyes, seemed to amaze Surp even further. The thunderstruck noble moved dazedly back to the side of his son.

Philip Crain glimpsed the Princess Mara gazing at him with dark eyes wide with astonishment, her red lips parted. Amazement at seeing Lanu take that tone with Surp, he knew.

But now Crain stood, gazing into the great sea of white faces that filled the plaza. Faces that were blurred with strange dread.

Dandor was whispering, and Crain spoke forth loudly, repeating the old scientist's words.

"People of Bara, another year has passed. And in it, as in all the years of the past, our world has become still more arid, its water and fertile land scantier. So we must do what we have had to do every year for ages—we must decrease our population, this time by four thousand families. That many must pass that the rest may be able to live.

"Four thousand men shall be chosen in this Drawing of the Lots today And those chosen shall, with their wives and families, depart tomorrow,

the Day of Passing. And now I, the king, in all justice and impartiality, draw the lots."

Crain, loudly repeating Dandor's whispered words, felt an inward amazement. These words that he was saying—did they mean that four thousand families were going to be killed? That was impossible, surely. Yet—

"The button on the pedestal of the spheres," Dandor was whispering tensely. "Press it!"

CRAIN pressed the black button. Inside the sphere of the tiny black balls, air hissed. The ebony balls suddenly whirled with mad speed.

The packed populace on the plaza were watching the whirling balls with faces in which life and death seemed to struggle for supremacy.

Then Crain noticed that there was a small aperture between the two touching spheres. Through this aperture, some of the swirling little balls were constantly being thrown by random chance into the empty sphere. As they entered the empty sphere, the tiny balls glowed with sudden light.

And Crain perceived that almost every time this happened to a ball, the black badge of one of the men in the throng before him glowed also with light. He began to understand at least the method of this great lottery.

Those tiny black balls—there was one of them for each man on Mars—and each ball were somehow in electro-magnetic rapport with the badge word by that man. When a ball was thrown at random into the empty lefthand sphere, forces there caused it to glow with light and the corresponding badge of some man immediately glowed also, showing that the man and his family had been chosen in the Drawing of the Lots.

Chosen—for what?

## CHAPTER IX

### *Palace of Peril*

AN utter and awful silence held the vast throng as this weird lottery proceeded. The tiny black balls in the righthand sphere continued to swirl and seethe, but Philip Crain, bewilderedly watching this strange lottery over which he was presiding, noticed that some of the balls thrown into the sphere of the chosen caused no badge in the crowd to glow. Crain guessed that those chosen in such cases must not be in this crowd but were citizens of the other four cities.

Crain heard a man in the crowd utter a hoarse, raw cry of despair as his badge glowed. A woman sank into a dead faint as the man beside her was chosen, and another screamed chokingly as her husband's badge broke into fateful light. But except for these few, the chosen ones in the throng accepted their fate in deathly, hopeless silence.

The machinery in the pedestal of the spheres ceased to hum. Four thousand balls had been thrown into the lefthand sphere. The Drawing of the Lots was over.

Dandor was whispering again behind Crain. And Philip Crain, speaking slowly to that deathly-faced throng, repeated the words.

"Tomorrow is the Day of Passing, as you know. Tomorrow at noon, the chosen among you will gather with your families in the temple, where they will pass that the rest of our race may live."

Slowly, in deathly silence, the great crowd began to stream away. And it seemed to Crain that as the throng dispersed, their horror-laden eyes were fixed on the drifting, firefly things that flickered in the air—the Electrae.

As the crowd dispersed, the nobles left their positions and began to chat and laugh together.

"Will all those chosen be at the temple?" Crain asked Dandor incredulously. "Won't they try to escape?"

"They cannot escape," Dandor answered. "No man can live in the desert, and in the cities, their glowing badges would betray them."

"They could throw away the badges," Crain objected, but the old scientist shook his head.

"No, every man on Bara must wear

his badge always. The nobility and the scientist class wear no badges because they are exempt from the Drawing of the Lots."

"But what will happen to those chosen ones tomorrow?" Crain asked. "They surely won't be killed?"

"No," said Dandor sadly. "It is a fate far worse than death that—" He broke off. "The princess approaches!" he muttered. "Be careful now, Krayn!"

The eyes of the Princess Mara as she came toward Crain were fixed on his face inquiringly.

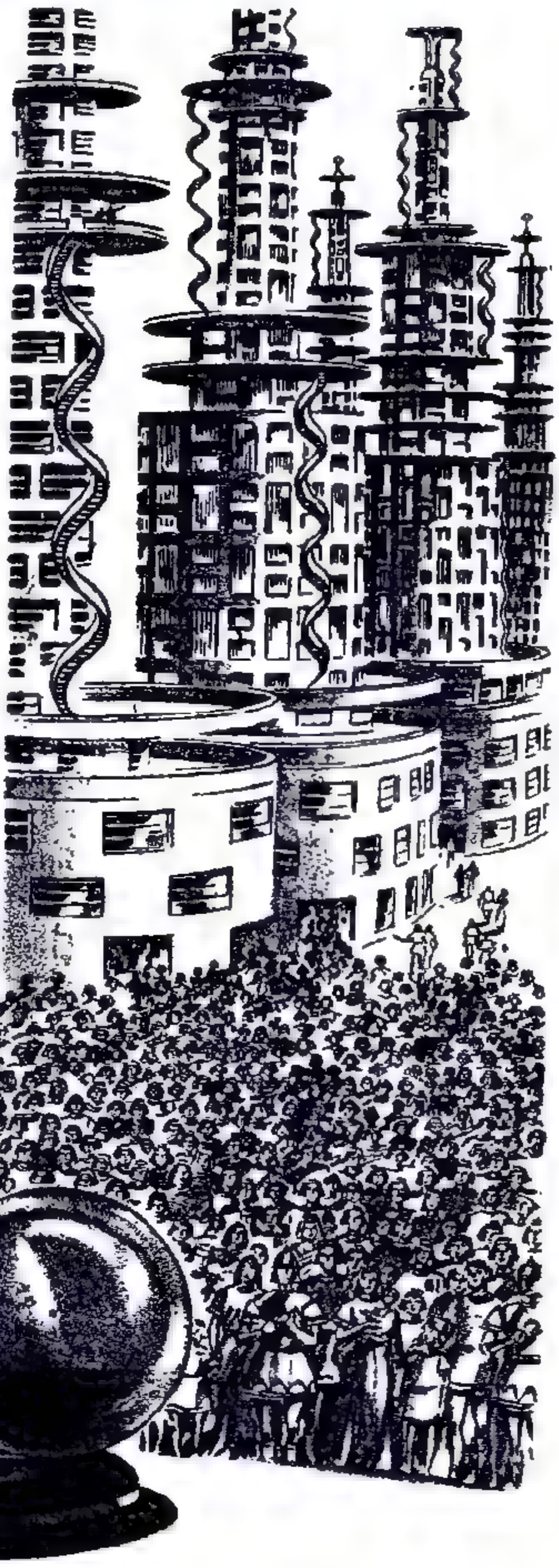
"Where did you go in such haste last night, Lanu?" she asked. "You promised to tell me today."

So Lanu had been with the princess when Dandor had summoned him to the desert tower. Crain realized with a chill that he might easily betray himself to this girl.

"I can't tell you yet, Mara," he said, trying to smile. "Later on, you'll learn."

Mara's beautiful face showed astonishment. "It is the first time you ever refused me anything, Lanu!"

Crain abruptly remembered what Dandor had said—that Lanu was deeply in love with his fiancée. He was racking his mind for a reply, when there came an interruption.



*Inside the sphere of the tiny black balls, air hissed (Chapter VIII)*

SURP and Ligor were approaching him. And all the nobles on the terrace became silent, intently watching as the powerful noble and his son crossed the stone platform.

Surp's grizzled face still wore an expression of dazed surprise, and his shrewd, small eyes were calculating as he bowed to Philip Crain. Ligor, his handsome countenance warped with hatred, was glaring at Crain as he also bowed.

"I beg leave to depart, Highness," Surp said, his voice unsteady. "I have urgent business."

A cold flame of wrath rose inside Crain. He spoke without considering his words.

"Urgent plotting against my throne, you mean," he told Surp harshly.

A gasp of surprise went up from the nobles. And Mara, who had stepped a little back, looked on with unbelieving eyes.

Surp seemed doubly stunned by the sudden savage indictment. His mouth opened, he tried to speak.

"If you doubt my loyalty, Highness," he choked, "I—"

"I know what your loyalty is worth, Crain cut him off contemptuously. "Go, if you wish. Your plots do not worry us."

Surp's face had gone dull red at the cutting rebuke. But when Ligor, hate twisting his handsome features, stepped forward as though to speak, his father held him back. The older man muttered in Ligor's ear. Then they bowed, and moved brusquely away.

"What possessed you to talk to Surp like that?" Dandor whispered to Crain. "Lanu would never have done that. He was too afraid of Surp."

"I couldn't help it," muttered Crain.

"Now Surp and Ligor will speed at once to wherever their men are holding Lanu prisoner," Dandor said, his eyes narrowing. "They will want to know how Lanu escaped. And they will discover you are an impostor." The old scientist's eyes flashed. "Wait —I will be back quickly!"

And before Crain could protest, Dandor was gone, pushing excitedly through the throng of nobles.

Philip Crain felt a tremor of apprehension as he was left to himself, surrounded by the nobles who were all gazing at him in puzzled surprise. Without Dandor at his side, could he hold up this impersonation?

The Princess Mara's beautiful face wore an incredulous expression as she came closer to him.

"I never thought that you had the courage to beard Surp to his face, Lanu!" she exclaimed.

"Are you sorry that I did?" Crain asked.

"Sorry?" There was a flash like lightning in her deep-blue eyes. "You know how many times I've tried to make you stiffen your attitude to Surp, how often I've pointed out to you the conspiracies against you which he has fostered."

Crain laughed with sudden recklessness. "Yes, I know you have," he said. "But Surp and his plots are the least of my worries."

"Yet Surp has the support of a great part of the people," Mara reminded him. "They grow tired of this yearly Drawing of the Lots—tired of the shadow of horrible doom under which they live. And Surp makes them smooth promises that if he is king, he will abolish all that."

"I can turn the people to my side, all of them, whenever I wish," Crain told her, proudly and confidently.

HE was suddenly amazed to realize how much, unconsciously, he was stepping into the part of the Martian king. He almost felt as if he were king of Bara, by right.

Crain knew whence that feeling came—from his father. That hereditary memory-pattern that he had inherited from Tharkol, or John Crain —though once it had been broken, it was now waking further to life under the stimulus of his present position. He mustn't let it wake too much! He must remain Philip Crain, working secretly for the cause of Earth.

Mara seemed puzzled at the power and authority in Crain's confident words.

"You are different today, Lanu," she said thoughtfully.

A tiny chill ran down Crain's back. Had he overdone his part? Then he saw, in Mara's deep eyes, the slow kindling of something that stirred his blood, left him breathless.

"I think," she said, "that I shall not regret next week's ritual so much, after all."

"What ritual takes place next week?" Crain asked, before he thought. The next moment he could have bitten out his tongue. For amazement showed in Mara's face.

"Our marriage, of course," she said, in astonishment. "You cannot have become so absent-minded, Lanu."

Crain floundered for an answer. "I was only jesting, Mara," he said, trying to laugh. "How could I be absent-minded about that when I have been urging it so long?"

The princess said nothing. But she seemed intensely perplexed, doubtful. Crain realized that he had come very close to complete betrayal of himself.

He thanked his stars when he saw Dandor returning. The old scientist's face showed suppressed excitement, as he asked Mara:

"You'll pardon me, Princess, if I take the king from your side? We have an important matter to discuss."

Mara inclined her dark head wordlessly, her puzzled eyes still on Crain's face. Awkwardly Philip Crain returned the bow and let Dandor lead him toward one of the palace doors.

The old scientist was quivering with emotion. Something important must have happened. But Crain could not forget that dawning doubt in Mara's eyes. Even now she was looking after him with a little frown of perplexity.

Crain felt a sudden stab of apprehension. Did Mara suspect his imposture? *Did* she?

## CHAPTER X

### *The Electrae*

DANDOR'S voice was vibrant as the old man led Philip Crain hurriedly along one of the rose-walled corridors of the palace.

"We shall soon know where Surp is holding Lanu prisoner!" he declared. "I knew that Surp and Ligor would hurry straight from here to the place where they are keeping the king!"

"And you've arranged for a spy to follow them?" Crain said quickly.

"No," Dandor replied. "Surp and his men will be on the lookout for spies. I did better than that. I put a tracer into Surp's Worm."

"A tracer?" Crain repeated uncomprehendingly.

Dandor's white head bobbed. "Yes, a tracer is a tiny ball like those used in the Drawing of the Lots, containing a miniature transmitter of electromagnetic vibrations. By means of its constantly emitted signals, we can learn the tracer's exact whereabouts from an apparatus in my apartment here."

They had reached the lift-cage and in a moment were shooting upward.

When they entered Dandor's sunlit apartment, Kay was standing at a window, looking down upon the crowd still dispersing in the plaza. The robot Kro stood in watchful silence exactly where they had left him.

Dandor hurried into his laboratory. But Crain paused anxiously at the girl's side.

"I didn't like to leave you, Kay," he said. "But I had to."

Her face was set and composed, but her eyes were full of scorn.

"Yes, I saw you down there, among your nobles, speaking to your people," she said bitterly. "You looked a true Martian. I congratulate you on the speed with which you've adapted yourself."

"Kay, please try to understand," he groaned. "It's as I told you—the only chance I have of working for Earth against this Martian scheme is to play this part. I don't like to do it, but I've got to."

"I don't believe you," she said slowly, "You *like* being a Martian, Philip. You've forgotten your Earth blood. You forget it more every hour we're on this world."

Crain could not deny the partial truth of that indictment. He had

been forced to fight every moment against the strong pull of his Martian inheritance.

"You're a king on Mars now," Kay was adding scornfully. "The Philip Crain who would have died rather than join the enemies of his own Earth people, is dead."

"Krayn—come here!" Dandor called from his laboratory.

With a hopeless glance at Kay's set, embittered face, Philip Crain turned and entered the room where Dandor was hanging over a big globe that represented the planet. Most of it was blank red desert, but at the poles were the little white snow-caps, and branching from them the canals that carried water to the scant fertile lands around the few Martian cities.

Not far from Ingomar upon the globe-map shone a tiny spark of white light. It was moving slowly southeastward, crawling into the blank red desert.

"THE signal light from the tracer," Dandor explained. "The tracer's emitted electromagnetic vibrations are received by the apparatus inside this globe, and automatically plotted by direction and intensity, so that that little spark shows the tracer's exact position at any time."

"Then Surp and his men are holding Lanu somewhere in the deserts southeast of here," muttered Philip Crain.

Dandor nodded. "We shall soon know exactly where. And then we can make an attempt to rescue Lanu."

Rescue Lanu? Crain wondered, as he stared at the crawling little light, what he was to do then? It might be, that if he saved Lanu's life and throne, Lanu would be grateful enough to abondon the plan of looting Earth of water. But Crain doubted it. From what he had seen of Lanu, he doubted that he could count much on his spoiled and arrogant half-brother's gratitude. And even if Lanu were willing to abandon the great plan, no one else on Bara would be willing to do so, once Dandor made the fateful announcement that the way to Earth was open.

"I thought," he said to Dandor, "that you were going to announce at the Drawing of the Lots that the way to Cholu is open."

"No, Krayn," said the old man earnestly, "I plan for you to make that announcement tomorrow, in the temple. Coming from you, the supposed Lanu, just before the chosen ones pass to their fate it will set the people wild with joy and will make them all firm supporters of Lanu."

Crain was dismayed. He didn't want to make that announcement that embodied such a dire threat to Earth!

"Why not wait until after we have rescued Lanu?" he suggested.

"We cannot afford to wait," Dandor said. "For should Surp learn from Lanu that the great plan nears success, Surp might announce it, to swing support to himself."

Crain dared not oppose the scientist further, without the risk of arousing Dandor's suspicions. He must keep Dandor convinced that he was loyal to Bara.

He would make the announcement, Crain decided swiftly. But every moment he would be scheming and working to thwart the great plan.

"But, Dandor," he asked, this time determined to get an answer, "what's going to happen to those chosen four thousand families in the temple tomorrow? You said they wouldn't be killed."

Into Dandor's face came that quailing horror, that shadow of icy dread, that had been there before at that question.

"No, Krayn, they will not be killed," he said heavily. "But a dreadful fate hangs like a sword over every person on Bara, with the exception as I told you, of the nobles and scientists."

"What fate?" Crain insisted tightly.

Dandor's black eyes were somber as he looked at the younger man. "Krayn, do you remember asking me about the little things of floating light that are everywhere on Bara—the Electrae?"

CRAIN nodded. They had puzzled him ever since his coming to Mars, those weird little firefly entities.

"What about the Electrae?"

"The four thousand chosen ones and their families," Dandor answered solemnly, "will tomorrow become Electrae."

"What?" Crain exclaimed, shocked to the depths of his soul. "You mean that all those human beings will be changed into those things of electricity or light?"

"Only too terribly true, Krayn," Dandor admitted, sadly. "It has been going on upon Bara for long years. Everyone of the countless Electrae you have seen, everyone of those drifting and immaterial electric things, was once a human being!"

Philip Crain was appalled; unable to credit the vista of horror that Dandor's words opened up.

"It began," Dandor was saying somberly, "when we realized that our drying, dying world could not support all our numbers. Yet we could not put some of our people to death to solve the problem. That would be murder, would plunge our world into riot and war.

"Then one of our scientists advanced a solution. They had concentrated upon atomic physics, the inner structure of matter, hoping to find a method of transmutation of elements which would permit the synthesizing of artificial food and water. Their hope was shattered, for they learned that transmutation on a large scale would release uncontrollable atomic energy which would destroy our world. They had to give up that hope, but they had learned much about atomic structure.

"They had learned that the electrons and protons of which matter is composed can be transformed into non-material photons, or corpuscles of radiation, by converting the electric charge of the electron or proton into an electric field. Even a living creature could be transformed thus into photons.

"A living creature so changed into a photon cloud retained a certain life, a certain consciousness, since the pattern of his photons remained relatively the same as his former electronic pattern. Though now a mere cloud of photons, those immaterial particles retained the vital patterns of life and mind. As immaterial electric clouds, such changed beings could live eternally, needing no food or air or anything else. And could be translated back into solid human beings at any future time.

"The scientists proposed that our surplus population be changed into such immortal and immaterial creatures of electricity—the Electrae. As Electrae, they would not be living as we know life, yet neither would they be dead, for they could always be changed back into real people. They would merely drift about our planet eternally, and some day, when the great plan to revivify Bara with new water succeeded, the Electrae could all be transformed back into human beings.

"Since then, thousands on tens of thousands of Barans have become Electrae. There are now millions of the blind, dumb, shadow things floating aimlessly about our world, living out their deathless existence, waiting for the hoped-for day when they may again become human beings.

"THE existence of the Electrae is a hollow mockery. Their dim consciousness is unable to see or hear or feel anything, since as photon clouds they have no sense organs. They are sensitive to electrical emanations of certain kinds, and can communicate dimly with each other by means of impinging waves from their own photon beings, but they can hold no communication with any living being on Bara. They are mere ghosts, floating, dancing, drifting in a blind darkness in which they can feel nothing, hear nothing, see nothing.

"And that, Krayn, is why we people of Bara have for so long hoped and dreamed of getting water from Cholu. That is why your father Tharkol dared everything in the heroic attempt to reach Cholu. Those millions of lonely, bodiless Electrae who drift forever around our world—we all have friends, loved ones, among them, whom we pray may some day be released from their horrible state."

"Good God!" Crain whispered. "All

those flickering things—once men and women—"

"Aye, the Electrae are the tragedy of this world," Dandor said solemnly, searing pity and sadness in his eyes. "Every Baran dreads each year that he may be chosen in the Drawing of the Lots, that he and his family may be called upon to enter that dim state of bodiless immortality."

Crain shuddered deeply as he looked out of the window and saw, even now, amid the sunlit towers of the rosy city, vague flickers of light drifting aimlessly to and fro.

Immaterial electric things that had been men! Cut off from all life, all reality, floating through dim eons.

"It was the process used in changing people into Electrae," Dandor was saying, "that we adapted to use in the matter-casters. The matter-casters make use of a differently tuned force but they, too, translate matter into a photon cloud that is projected to another matter-caster which re-transforms it into solid state. Just as, some day, all the Electrae may be re-transformed.

"And now," he added, his tragic eyes lighting with new hope, "the day of the release of the Electrae cannot be far off—now that you have helped us open the way to Cholu and its water. When Bara is revived and the Electrae become men and women again, they will bless your name, Krayn!"

Philip Crain shrank from the old man's fervent praise. He didn't deserve it—he, who was working secretly, not to achieve the great plan, but to thwart it.

Crain felt himself caught in a tragic and terrible dilemma. He *must* be loyal to Earth, the world of his birth and breeding! He couldn't let the Martians loot Earth of its water, and make of Earth a devastated planet.

Yet if loyal to Earth, if he succeeded in thwarting the Martians, then he was dooming the Electrae to remain forever in their unthinkably horrible state. Was sentencing men and women, whose blood flowed in his own veins, to remain in that terrible immortality forever!

## CHAPTER XI

### *Princess of Bara*

BEWILDERLY Crain paced to and fro, distraught, his mind in turmoil. He told himself fiercely that he must not let sympathy for the tragic Electrae distract him from his purpose. He must fight for Earth!

"See, the tracer has stopped!" Dandor exclaimed, bending more closely over the globe.

Crain hurried back to his side. Upon the globe, the tiny spark of the tracer was stationary in the blank red desert, far southeast of Ingomar.

"I know that place!" Dandor said. "There lies the ruined city L'Lon, one of the many great cities when the seas shrank, ages ago."

"Then Surp and his men are holding Lanu prisoner in the ruined city?"

"They must be," Dandor affirmed. "No one ever goes there, and Surp must have some secret place there." The old scientist's eyes narrowed in thought. "We shall have to go alone to rescue Lanu," he said. "We dare not take soldiers with us, for no one must know of this impersonation of yours. Somehow we must get Lanu away, replace him on his throne without anyone knowing what has taken place. And it will be hazardous!"

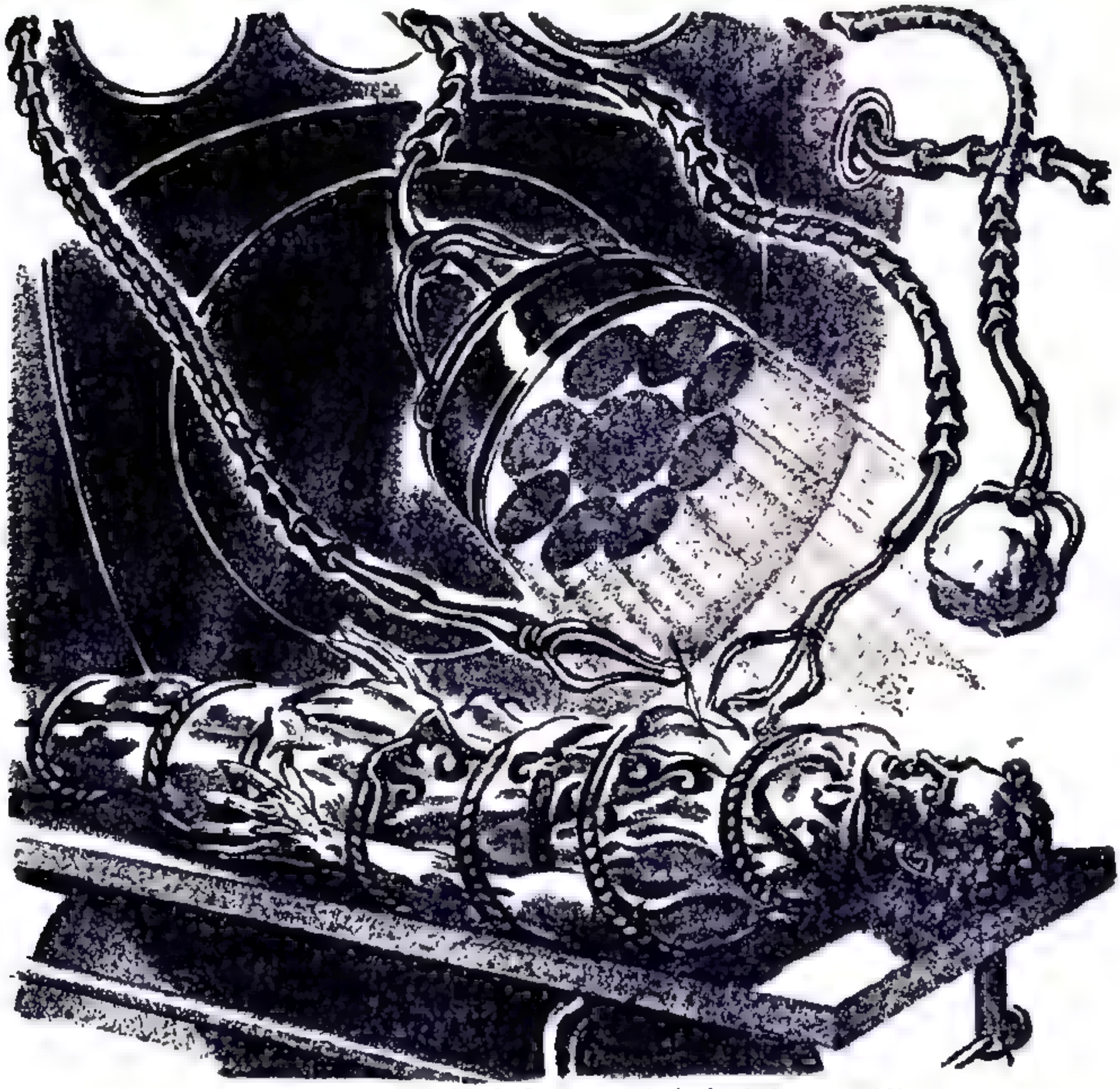
Philip Crain said nothing. He was trying to decide his own course of action in the face of this situation.

Lanu was his half-brother—yet if he, himself, was killed trying to rescue Lanu, it meant all chance of averting the Martian onslaught on Earth would be gone!

Still, if he refused outright to attempt a rescue of Lanu, Dandor would at once begin to suspect him.

Dandor postponed Crain's decision.

"We must wait until after tomorrow to attempt our rescue of Lanu," he declared. "For tomorrow is the Day of Passing, when you must be in the temple for the dreadful ceremony. Only those of royal blood are allowed to approach the altar which transforms the chosen ones into Electrae.



*The scalpel stabbed the flesh of Crain's body (Chapter XV)*

. . . Tomorrow night we shall go to ruined L'Lon."

Crain nodded, hoping that before the next night he would have found some way to strike for the cause of Earth. He had formed a vague plan that he hoped he might be able to put into effect. If he could slip out of this city with Kay, speed to Dandor's desert tower where the matter-caster was, and flash back from it to Earth, then they could destroy the matter-caster on Earth, and end the threat.

He felt a pang at the thought that he would be cutting himself off forever from this world that he was coming somehow to love; this world of his father's kingship. And that he would be sealing the doom of the tragic hordes of Electrae, for all time.

"You must go now to the king's apartments, Krayn," Dandor was saying. "It might cause wonder if you remained in my rooms. I'll go with you, to be at your side should you need my coaching."

"But Kay?" Crain asked anxiously.

DANDOR looked thoughtful. "The girl is still loyal to Cholu, is she not? I have guessed that from her talk with you, though I cannot understand that Choluan language."

"Yes, she is loyal to Cholu," Crain said slowly. "She thinks that I too should remain loyal to that world."

"As though the son of Tharkol could own loyalty to any world but

Bara!" Dandor exclaimed unsuspiciously. "The girl must be kept under watch, Krayn. She might do or say something that would betray you. We shall take her with us to your royal apartments, and Kro can guard her." And he added, "She must wear the Baran cloak. We want no suspicion of her identity."

But Kay refused to wear the cloak.

"*I* have not turned Martian, Philip," she said, her eyes hard and hostile. "I won't wear their clothes."

"Tell the girl that I can have Kro wrap her in the cloak and carry her," Dandor said emphatically.

The threat had its effect. Angrily Kay wrapped the silken cloak around her.

The lift-cage took them down to the ground floor of the palace. Chamberlains ushered Philip Crain toward the apartment of the king. Guards outside its door raised their silver gas-guns in salute to him as he entered. Dandor, Kay and the clanking robot followed him.

The royal apartment was a series of magnificent rooms. High-ceiled chambers with walls of rosy stone, hung with brilliant crimson silks upon which were worked golden portraits. All the furniture was of metal, for in this world wood was a rarity. Upon the floor were thick, soft, dark green rugs.

Tall windows admitted the sunlight. It was sinking toward the horizon, for hours had passed while they watched the tracer. As shadows gathered little flaring artificial suns automatically glowed in the ceilings, waxing in brightness as the daylight waned.

"They are simply areas of the stone ceilings," Dandor answered Crain's question about the lights, "in which an electric excitation of the atoms of the stone itself is induced, causing them to emanate light-waves."

He pointed to the golden portraits that were worked into the crimson hangings.

"Those are portraits of all the long-dead kings of Bara," he told Crain. "All of them your ancestors, Krayn."

Philip Crain could not restrain his eager interest as he moved along the walls, staring at those golden faces. His ancestors! Kings of Bara whose blood throbbed in his own veins!

He uttered an exclamation when he came to the last portrait. That great, leonine head, that powerful face—how well he knew them!

"My father!" he exclaimed.

Dandor nodded. "Yes, the great king Tharkol, father of Lanu and yourself. His portrait was added when he was believed to have perished. The old scientist stared sadly into memory. "How many times have I sat in this very room with Tharkol, working for the furtherance of the great plan! How I waited and hoped for the word to come from him, that never came!" His eyes brightened. "But you finally called, and came, Krayn—you, Tharkol's son. It is almost like having Tharkol himself beside me again, for you have your father's strength and purpose as Lanu has not. I wish that you were really the king, Krayn."

THE simple, wistful words touched Philip Crain, brought a lump to his throat. Impulsively, he grasped the old man's hand.

"No matter what comes," he said, "I'm glad that I've known you, Dandor. My father's friend—and mine."

His conscience hurt him, for it was his duty to thwart Dandor's dearest purpose, to wreck the old scientist's lifelong work and hope.

A servant obsequiously entered the softly-lit apartment, and bowed low to Crain.

"A message from the Princess Mara, Highness," he said. "She asks you to dine with her tonight."

Philip Crain glanced inquiringly at Dandor, who nodded imperceptibly.

"Tell the Princess Mara that I'll come," Crain said.

When the servant had gone, Crain turned to the old man, his lean face worried and anxious.

"I don't like to meet that girl again!" he exclaimed. "Dandor, I'm afraid that she half suspects me."

"She would suspect you even more, if you did not come," Dandor declared. "Lanu was madly in love with

her and spent most of his time with her. More time than Mara cared for, since she has never loved Lanu."

"Then why is she marrying him?" Crain bluntly demanded.

Dandor shrugged. "The king must marry only the highest blood. And it was felt that this marriage would strengthen Lanu with the people, against the plots of Surp."

"You'll go with me?" Crain asked anxiously.

The old man shook his head emphatically. "I dare not, Krayn! It would infallibly make Mara suspect something, for Lanu would never have me accompany him. You must rely on your own wit to keep from betraying yourself. Keep to generalities, and get away as soon as you can."

Kay watched Philip Crain with a shadow of heartbreak in her bitter eyes as he prepared to go though she had understood nothing of the conversation that told where he was going. Yet when he spoke to her anxiously, she stared stonily past him.

He felt oppressed by the girl's attitude as he started through the palace behind two obsequious chamberlains. Kay thought him a traitor to Earth—and Dandor would think him a traitor to Bara when the old man learned his real purpose. And he would in some sense be a traitor to Bara, to the Electrae, if he succeed in doing what he must do.

The rose-walled corridors of the great palace beamed with light. Servants and guards sprang to stiff attention, as Philip Crain's tall, crimson-cloaked figure strode through the halls.

Men and women of the nobles stepped to one side and bowed as he passed. He inclined his head toward them, without speaking.

His chamberlains flung open two wide silver doors and made loud announcement into the rooms beyond.

"The King!"

Crain stepped uncertainly forward. This was an apartment in the east wing of the palace, much like his own except that the chambers were smaller, the hangings daintier, the whole place breathing a feminine atmosphere.

MARA was coming to meet him. The Baran princess had discarded the royal crimson and wore both cloak and gown of white, a single brilliant green jewel blazing in her tightly-coiled blue-black hair.

Her deep eyes clung steadily to his, and there was an expression of queer interest on her beautiful face as she bowed slightly to him.

"I am surprised that you came, Lanu," she said, a little mockingly. "I have heard that there is a strangely lovely girl in your apartments tonight."

"How did you learn that?" Philip Crain asked, startled.

"Can anything remain secret long in this gossip-ridden palace?" she countered. "Who is she?"

"A niece of Dandor's," Crain answered with assumed indifference. Then a devil in him made him ask; "You're not jealous, darling?"

"Of course not," Mara answered with cool detachment. She nodded toward a small metal table set beneath soft lights. "Shall we dine now?"

Crain was suddenly conscious of an amazing hunger. He realized that he had eaten but little for many hours. And the Martian food was good. There was no meat, but a half dozen different vegetables had been blended by skilful cookery into delicious flavors.

There were queer-tasting yellow fruits, also, and a flagon of thick black wine. The wine warmed him, and he filled his glass again. He felt the superhuman strain under which he was laboring drop a little from his shoulders.

"You seem more interested in the food than in me," Mara said, studying him. "You've changed, Lanu."

A warning note rang in Philip Crain's brain. But he looked at her calmly over his wine-glass.

"In what way?" he asked as they rose.

"In—many ways," Mara's black brows knitted in puzzlement.

Crain sensed that this girl's half-formed suspicions were dangerous!

"I haven't changed in one way, Mara," he said, and deliberately took

her into his arms. Before she could speak or move, Crain bent to her lips. Hell, he'd *prove* to her that he was Lanu!

The lips of the Baran princess were soft and sweet, her midnight hair breathing fragrance into his nostrils, her willowy body suddenly yielding. A dizzying shock rocked Crain, and he was trembling a little as he drew his head back. And Mara was breathless.

"Lanu, you never kissed me like *that* before!" she exclaimed.

He'd overdone it, then, Crain thought dizzily. But he hadn't been able to help himself. Mara was still inside the circle of his arm, her blue-black eyes glowing with new light.

Crain fought down the strong impulse to repeat that kiss. Mara was his half-brother's fiancée! He must play a part, but he mustn't let himself play it too well!

They moved out of the room onto a broad balcony. Standing there in the darkness, his arm around Mara's slim, silken figure, Crain stared fascinatedly into the night-shrouded gardens below.

BOTH of the two silver moons were in the heavens, the farther one shining high and remote in the east, the nearer one visibly creeping across the star-shot sky above the southeastern horizon. Twin moons whose shifting silver rays fell in unreal beauty upon the soaring towers of Ingomar, and upon the low, shrub-like trees and massed flowers of the gardens.

The air, thin and cold but laden with pungent scents, further waked in Crain the haunting hereditary memories in his mind. For the moment, he felt himself wholly of this world and people, standing here with Mara close beside him, looking out upon his world, his city.

Mara shivered slightly. And her voice held brooding sadness.

"Always, when we are most happy, we must remember the doomed ones, the Electrae," she whispered.

Sadly she gazed at the flitting hosts of beautiful, glowing things like fireflies, drifting through the gardens and through the elfin towers of the city around them. Drifting, dancing, floating on in their eternity of dim and unhuman consciousness. Men and women once, and now those beautiful, terrible things of drifting light.

"They poison our happiness, always," Mara was saying somberly. She pressed closer against him, with a shudder. "I cannot keep from thinking of those thousands of the chosen, who tonight know with sad hearts that tomorrow in the temple they must become Electrae."

"I know," Philip Crain said heavily. "I can't forget them, either."

No, he could not forget them. For he knew that on the morrow it would be his own hand that would hurl those chosen victims out of life into that terrible immortality.

## CHAPTER XII

### *The Day of Passing*

THROUGH the brilliant noonday sunshine of Ingomar, echoing into every nook and cranny of the city's rosy towers, throbbed the slow and heavy tolling of a great bell. Deep, low notes, speaking out of a hoarse iron throat to a city that dreaded its summons.

From every quarter of Ingomar, people were streaming toward the low, domed temple at the south end of the great plaza. Philip Crain, watching from the window of his royal apartment could see the slow-moving, silent throngs converging upon the temple. And they moved in a dread and deathly silence.

"It is time to go, Krayn," said Dandor's low voice. "The passing of the chosen must begin."

"Do I have to do this thing?" Philip Crain asked distractedly. "Change those people into the horrible Electrae?"

"You must, yes," Dandor said sadly. "There is lack of food, even now. Unless those chosen go into the Electrae today, many will starve tomorrow."

The old man's eyes lighted a little as he added, "Yet they will not be Electrae for long! You shall tell them today of the imminent success of the great plan. And once we have rescued Lanu, it will not be long before our expedition goes to Cholu to bring to us the water that will make possible the release of all the pitiful doomed."

Crain's wide shoulders sagged. "All right—I'm ready," he said heavily.

Kay stood at the window, gazing at the crowds entering the temple. Crain went to her side.

"You'll be safe here with Kro," he said earnestly in English. "And Kay, soon you and I may be able to get back to Earth, and cut the connection between worlds."

She looked at him with no belief in her white, set face. "You tell me that, tell me you're working for Earth, while you sit on the very throne of this world," she said.

"Kay, you *must* believe me," Crain urged.

Her brown eyes flashed. "Why do you stay here with me, when your Martian princess is waiting?"

Crain had already told her who Mara was, and that the princess was affanced to the Baran king.

"Come, Krayn!" Dandor called impatiently.

Hopelessly, Philip Crain turned and followed the old scientist. The robot Kro, a motionless statue of metal, still stood where he had stopped the night before, his lens-eyes fixedly watching the girl by the window.

Crain and Dandor passed through the rosy corridors of the palace toward the south facade. And Dandor was talking earnestly, lowering his voice so that they could not be heard by the half-dozen servants respectfully following them.

"Remember my instructions on what you are to say and how you are to operate the altar, Krayn," the old man said. "I cannot be beside you when you do that, for only those of royal blood may stand upon that spot. If you forget, you are lost."

"I won't forget," Crain promised, remembering the minute instructions Dandor had given him that morning.

"If you can continue your impersonation unsuspected today," Dandor added eagerly, "we will have a chance to rescue Lanu tonight, and end this perilous situation."

THEY emerged onto the stone terrace that fronted the palace. Princess Mara and her ladies were coming out of another entrance. Mara again wore the royal crimson cloak. Her face was pale with tragic anticipation, and her eyes were shadowed as she greeted Philip Crain.

Trumpets of guards upon the terrace blared as Crain and the princess started with their small retinue toward the temple. The shrinking horror that all day had possessed Crain increased as they approached the massive arched entrance of the great domed building.

"Courage, Lanu," whispered Mara, clasping his hand. "This is the hard duty of the kings of Bara."

The warm clasp of her fingers strengthened him. "I'll try to do—my duty," he muttered.

A heavy company of guards was posted outside the temple entrance. They passed between the saluting soldiers. Then Crain halted, shaken, staring into the place.

The interior of the temple was a single vast, shadowy hall. It was a huge circular amphitheater, with many tiers of stone seats rising steeply from a large, round, black-paved stage.

At the center of this stage was the altar. It was simply a disk of white crystal set in the black stone floor. Near it rose a standard of red metal that bore six little wheels which were the controls of the altar.

Grouped around the outer part of the great stage stood some thousands of men, women and childen. All were dressed in white, and the badge of each man among them was glowing. They were deathly silent.

The chosen!

In the rising tiers, the first rows of seats were occupied by the bril-

liant nobles. The other tiers, far up into the lofty shadows, were filled with the people of Ingomar, leaning, tense and spellbound, watching.

And most horrible of all to Philip Crain, through the shadowy interior of the vast and silent temple, scores of firefly things of light drifted aimlessly. Scores of Electrae, floating here as everywhere, before the eyes of the thousands who were soon to enter that living death themselves.

Crain felt his courage crumbling like sand. He felt a wild desire to flee from the coming horror.

"Steady, Krayn!" whispered Dandor tautly.

"I can't do this thing—I can't!" Crain muttered thickly, his lean face pale as death.

"You must!" the old scientist whispered frantically. "Remember, these victims will not be Electrae long—soon the great plan will make possible their release."

His words were no comfort to Crain, for he knew that if he were successful in his own intentions, that plan would never be achieved, the Electrae never released.

"See—Surp and Ligor approach!" Dandor whispered. "You must not show weakness now!"

The massive Surp and his handsome son were coming along the aisle toward the royal party. Crain stiffened. Surp must *know*, now, that he was an impostor, that the real Lanu was still their captive. What would the noble do?

Secret satisfaction was written plain on Surp's hard, brutal face. His shrewd eyes had a glint of ironical mirth in them as he bowed with exaggerated respect to Crain.

"GREETINGS, Highness!" he said loudly. "You tarry long here. It is almost as though you had never seen the temple before."

"Yes," drawled Ligor insolently, amusement in his drooping eyes as he watched Crain, "a man from another world could not be more amazed than you seem—Highness."

They knew! They had learned from Lanu that he was from Earth, and were taunting him with their knowledge. Mara and the others stared, astounded by their effrontery.

Crain's lean face hardened, as his anger rose white-hot. For a moment, he felt all Martian, all king. These two upstarts, daring such words to him!

"You forget yourself, Surp," he said stingingly. "You and this insolent cub of yours should be in your seats, like my other nobles. Must I have guards escort you there?"

Surp went purple with rage. "You dare talk so to me?" he cried. "You, a mere—"

He checked the raging words on his lips. Checked them, Crain knew, because accusation of Crain as an impostor would be accusation of himself as kidnaper of the king.

Bursting with baffled rage, Surp glared. And Ligor, all his drawling insolence dissolved in fury, was showing his teeth like a maddened panther.

"To your seats!" Crain commanded roughly. "You are delaying the ceremony."

Surp controlled himself with a great effort.

"Very well, Highness," he grated, making the title of respect sound like a curse.

There was deadly menace and malice in the noble's hard face, and in the raging eyes of Ligor, as the two went down to take their places with the other nobles.

"Lanu, it seemed to me that Surp and Ligor were threatening you openly!" exclaimed Mara anxiously.

"They are too insolent, that is all," Crain answered, though he was still tense from that deadly clash.

"Be careful, Lanu," pleaded the princess, her dark eyes deeply worried. "You know how much Surp wants your throne, and how much Ligor wants—me."

Crain started. So Ligor was in love with Mara? He might have guessed it, from the eager way in which Ligor had hung about her before the Drawing of the Lots.

"I wish I knew what devil's web Surp is weaving," Dandor was whispering forebodingly. "He's got some-

thing planned, now that he knows the truth about you."

Crain moved down the steps toward the great central stage. As he reached its edge, the nobles behind him stopped, forbidden to go further. Only royalty could stand on that stage, Dandor had said—only royalty, and the chosen victims. Crain and Mara, their royal crimson cloaks gleaming brilliantly under the hooded lights, walked slowly across the stage toward the altar.

Crain took his place by the red metal standard that rose near the crystal disk of the altar. Mara stood near him, her dark head erect and her beautiful face white.

AND the whole great temple was silent. *Silent!* The stillness of death had invaded the vast, shadowy fane. No one spoke, no one moved. Only the drifting, glowing Electrae wandered aimlessly through the semi-dusk.

Philip Crain felt a slow, cold chill of deeper horror invade him as he looked at the great crowd of victims that stood near him on the stage. If they had been weeping, protesting, raging, it would not have been so bad, he felt.

But they were utterly still and silent. Men, women and children, their faces a white blur in the shadows, watching him with dull, apathetic hopelessness. A little child among the doomed ones whispered, and its mother soothed it. And the tide of awful silence rushed back over everything.

Philip Crain started to speak the words that Dandor had taught him. They came, thick and hoarse.

"You who must now pass into the Electrae," he said to the white-faced band, "must not feel that you are doomed to stay everlastingly in that state. No, when our world is revived by new water, then will you and all the rest of the Electrae be transformed, by this very altar, back into living men and women. Let that thought comfort you now as you pass out of life. And be comforted also by the knowledge that you are saving the rest of our race, by leaving us. And in a day to come, when our world is again green and fertile, when you Electrae are made living men once more, all our world will be grateful to you for this that you now do."

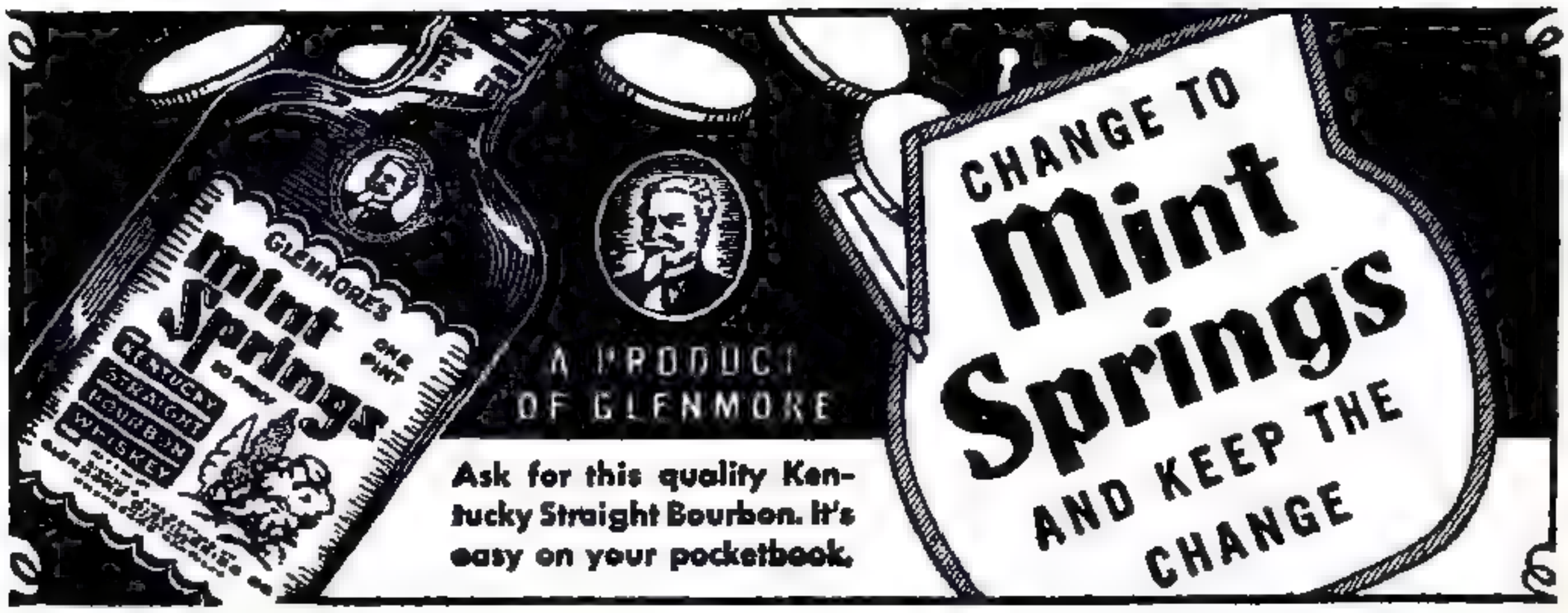
Crain ended the speech. The ritual speech that the kings of Bara had spoken for many years to the doomed.

The doomed ones were still silent. Still watching him with that dull, apathetic stare that made Philip Crain shiver to the soul, by its icy, utter hopelessness.

And then, breaking the accustomed ritual, Crain made the announcement that Dandor had said he must make.

"And the time when all the Electrae will be released comes soon!" he declared. "Yes, my people, the great plan that has been the dream of all Bara for ages shall soon be achieved. The road to Cholu is now open, at last! At this very moment, a matter-

[*Turn Page*]



caster is ready upon Cholu for us to use. Soon our expedition will flash across the void, to set up on Cholu the matter-casters that will hurl water from that world to Bara. Soon Bara will once more be a world of great seas and fertile lands, and then at last all the millions of the Electrae shall pass through this altar, and become once more living men and women!"

For a long moment, there was a dead frozen silence in the great temple, a silence of stupefaction. And then, from every throat in the vast fane, there ripped a colossal, deafening shout of frantic joy, a mighty cry that beat upon Philip Crain with stunning force.

"King Lanu!" yelled those thousands of frenzied voices. "King Lanu, our liberator!"

Mara was clutching wildly at Crain's arm.

"Is it true, Lanu?" she cried over that deafening, joy-mad uproar. "Is it true?"

"It's true, Mara," he said. "Dandor and I have opened the road to Cholu."

TEARS shone in her dark eyes, bright tears of gladness.

"Our people—the Electrae—saved!" she choked.

Still the joy-mad, frantic uproar of shouts beat wildly down upon Crain.

"Lanu! Lanu!" the people were crying hoarsely. And the doomed ones, who a moment before had been apathetic with dead hopelessness, were shouting loudest in their frenzied joy.

And Philip Crain felt—increased horror. For he knew that if he succeeded in what he meant to do, all these wildly rejoicing people were doomed to agonizing disappointment.

He must himself destroy their dream, whose promised fulfillment had set them mad with gladness! He, whom they were wildly hailing now as their savior, must be the one to shatter their frenzied hope!

Tortured by that knowledge, unable to bear more of their frantic acclaim, he raised his hand for silence.

"Soon," he repeated, "the great plan will be achieved, and then all the Electrae will be released. But now these of the chosen must pass into the Electrae, since we will need all the resources of our dying world for the expedition to Cholu."

A big man among the chosen, his face flaming with joy, shouted in answer: "We go gladly now into the Electrae, Highness! Yes, now that we know we are soon to be released, we do not flinch from the altar!"

"Aye, King Lanu!" chorused the doomed men and women around him, faces shining. "We know that soon you will release us all."

Philip Crain shuddered. This glad trust in him was almost unbearable.

"Your trust in me will be fulfilled," he said hoarsely, hating himself for the lie. "Now let the ceremony begin."

He reached to the little wheels mounted on the red metal standard before him. He turned them, setting each at a certain position, as Dandor had carefully instructed.

As he set the last wheel, the crystal disk of the altar blazed suddenly with violent purple light. An upward-shooting shaft of deep violet brilliance that cast a quivering glow over the faces of all in the temple.

"The altar is ready," said Crain, his voice thick and unsteady. "Pass into it in the order established among you."

The doomed ones began to move in a single file toward the blazing purple shaft. Men, and women with babies in arms, toddling children, advancing to the altar.

As the first man reached it, he paused and looked toward Crain, his quivering face shining with gladness.

"Bless you, King Lanu, for giving us promise of early release before we enter the altar!" he cried.

And then he stepped into the blazing shaft of purple force. Instantly his body's outlines wavered, were misty, were gone from sight. He vanished—and out of the blazing shaft drifted a thing of glowing light.

An Electrae—that had been that living man! Drifting aimlessly away now with the other Electrae in the shadowy temple.

CRAIN found himself shaking with horror as he witnessed that incredible and awful transformation. And his horror increased, as one by one, in single file, the rest of the doomed marched into the purple shaft of the altar.

For as they entered the deadly force, the faces of them all were turned toward him with beaming trust and joy, and they were crying out their blessing on him. Blessing *him*, who meant to shatter their joyful hopes! Blessing him, with their last words, as they entered the living death!

Dozens, scores, hundreds of them were passing thus into the altar. Each of them, as they entered the brilliant purple shaft, disappeared almost instantly—changing into one of the fire-fly things that floated off into the shadows.

Electrae were thick now in the great temple, hordes of them drifting about. Electrae that moments before had been men! With wild eyes, Philip Crain watched the last of the trustful, joyful victims pass into the altar, saw those last ones float off as immaterial electric things.

Then, his hand shaking, he reached and turned the little wheels. The blaze of the altar died.

"The ceremony is ended," he said hoarsely, and continued as Dandor had instructed him. "And it will be the last ceremony of its kind ever to take place here. No more of Bara's children shall pass into the Electrae. And soon all the Electrae shall pass back through this altar, to be living men once more."

Again the terrific clamor of acclaim crashed down upon him. To Crain's self-tormented soul, it was like the howling of mocking demons.

All the way back across the plaza to the palace, the throng that had poured out of the temple were shouting in hoarse acclaim, hailing Crain. Guards struggled to hold them back.

When Crain and Dandor and Mara entered the palace, the princess looked up at Crain, her dark eyes tear-misted.

"Lanu, you and Dandor will be blessed by every soul that is ever born on Bara!" she said, a throb in her voice. "For opening the road to Cholu's water, for renewing our world and freeing the Electrae."

Her warm arms went impulsively around his neck, her eyes were shining as she raised her face to his.

"I did not think that I could ever love you, Lanu," she whispered. "But last night—I learned differently. And now I know that you are worthy of my new-found love."

Even in his torment of soul, a thrill shot through Crain. It was *he* who had won her love, not Lanu! He kissed her hungrily. She clung to him, till Dandor began to cough warningly.

She stepped back, then, her face glowing. "Tonight," she whispered, and was gone. Crain stared shakenly after her until Dandor's voice broke the spell.

"KRAYN, you are not falling in love with Mara?" the old man asked, worry in his tones. "She is

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your brother's fiancée, remember."

"I know," Crain said hoarsely, then suddenly cried: "I wish to God I'd never entered this crazy imposture!"

"You were magnificnt in the temple," Dandor approved. "The people worship you as their savior. Now if we can rescue Lanu and get him back onto the throne, no plot of Surp's will ever be able to shake his popularity." The old scientist's face clouded as he added, "Surp and Ligor left the temple before the ceremony ended. I wonder why?"

"To hell with Surp!" Crain exclaimed in abandon, startling Dandor.

When they entered the royal apartments, the old scientist uttered a sharp cry.

"Something has happened to Kro!"

The huge robot lay unmoving on the floor. Nearby, a small, unfamiliar triangular mechanism was buzzing.

"Someone's been here!" Dandor cried in alarm. "That little mechanism—they overpowered Kro with it somehow!"

"Where's Kay?" cried Crain.

He dashed through the rooms. He came back, his face dead white.

"She's gone, Dandor! She's been kidnaped, like the king!"

## CHAPTER XIII

### *In Ruined L'Lon*

STUNNED by this new blow, Philip Crain's lean, dark face was suddenly haggard with anxiety. Kay gone, kidnaped!

"Surp is behind this!" Dandor was shouting. The old scientist's black eyes were flaming.

"But why in God's name would Surp want to kidnap Kay?" Crain cried.

Dandor did not answer at once. He was bending over the small triangular mechanism that buzzed steadily on the floor. With deft, skilled hands, he began dissembling the buzzing little machine.

"As I thought!" he exclaimed. "This mechanism emits a field of force which dampens and neutralizes the electric nerve-currents of Kro's body. Kro's brain and nervous system are electrical, you see, Krayn. His artificial brain is a complex of metal neurones which controls the photo-electric power that animates his body. And the field of this little mechanism effectively dampens his electric mental currents."

Dandor paused suddenly in his dissembling of the little machine, and looked up, his wrinkled face startled.

"But who upon Bara could have devised a super-cunning mechanism like this?" he muttered in perplexity. "There is no Baran scientist except myself, in these decadent days, who could have done it. Is it possible that there is some great Baran scientist of whom I do not know, who is working for Surp?"

As Dandor completed dissembling the little mechanism, its buzzing stopped. Instantly, Kro rose to his feet.

"Ligor and some of Surp's men did this," the robot declared. "I saw them enter—then I knew nothing."

"Why would Surp kidnap Kay?" Crain cried again. "How did he even know of her existence?"

"He must have learned from Lanu that a girl came with you from Cholu," Dandor muttered thoughtfully. His eyes flashed. "I begin to see now! Surp holds Lanu, but while you fill Lanu's place, Surp cannot seize power. So, guessing that this Choluan girl is dear to you, Surp has seized her so as to have a hold on you. He will doubtless threaten to kill the girl unless you do as he wishes."

Crain was appalled, haggard and pale with anxiety. Kay, little Kay, in black danger—and it was he who had unwittingly brought her into this peril.

"I'm going to L'Lon," he said, his face set. "Surp will have Kay there, with Lanu."

"She will be there with Lanu, yes," Dandor agreed. "And we will have the advantage of surprise, for Surp cannot guess that we know where his secret stronghold is."

"I will go there alone, Dandor," Crain declared. "One man can do as

much as two. And you must stay here, so that if Surp tries to seize the throne, there'll be someone to prevent it."

Crain was thinking desperately that if he could get Kay out of that hell-nest in L'Lon, he would speed with her to Dandor's desert tower and use the matter-caster to flash back to Earth. Once there he could see to it that Earth and its coveted water was safe forever.

He forced from his mind remembrance of the pitiful Electrae, those tragic hordes of drifting electric ghosts who had been men. He must think of Earth, he told himself fiercely. That was why he did not want Dandor with him, for the old scientist would oppose his plan with all his might.

"YOU are right, Krayn," Dandor said worriedly. "I must remain here to ward off any coup that Surp might attempt in your absence. But Kro shall go with you."

Crain made no objection to that. He felt that he could get rid of the robot without difficulty, when necessary.

The sun was setting. The old man sent Kro out to make ready a Worm, while Crain hastily changed into a metal tunic and helmet like those of the Baran soldiery, flinging the crimson cloak over them.

Dandor gave him a gas-gun, and a tiny watchlike mechanism whose use the old scientist explained.

"You must go secretly, by the window," Dandor said. "Surp's spies must be watching your movements." His voice broke a little. "And my hopes go with you, Krayn. If you and Kro save Lanu tonight, you save the throne of your fathers, the new Bara that is to be, from Surp."

"Goodby, Dandor," Crain said hoarsely. "If we don't meet again, try to remember me as a friend."

He dropped from the window into the darkness. Silently he moved along the shadow of the vast palace wall to the rear courts.

The chill of the Martian night was nipping. To his left, the west gardens lay dark and silent, drifting Electrae moving through trees and flowers like wandering stars. Kabu, the nearer moon, was hurtling up into the southwestern heavens.

Crain glanced back at the vast pile of the palace, its twin spires looming against the fretted stars. Palace of his fathers, that he was looking on for the last time! He saw the glowing windows of the east wing, and felt sick heartache at the thought of Mara waiting there for him. Never to see her again, never again to hold her in his arm—

He forced that thought from his mind. Kay's safety, and the safety of Earth, depended on him.

In an outer court a great Worm glistened in the moonlight. He climbed in and found Kro already at the controls.

"Start at once," Crain ordered. "For L'Lon."

The streets of Ingomar were flaring with light, crowded with rejoicing people tonight, as the Worm glided rapidly through the city.

"Hail King Lanu, savior of Bara!" hundreds of voices were shouting in jubilant excitement. "Lanu!"

Crain felt his heartsickness deepen. These people, little dreaming at this moment that he was leaving Ingomar with the ultimate objective of shattering their age-old dream, by cutting them off from Earth and its water forever—

The dim expanse of the desert stretched before them as they passed out of the city. It was a dreamlike vista under the nearer moon, with scattered Electrae wandering above it. Kro opened up the power, and the Worm shot like a great rushing snake over the vague sands.

Crain leaned toward his unhuman metal companion.

"Teach me how the Worm is driven, Kro," he commanded. He had suddenly remembered that he would need to know that if he and Kay were to get to Dandor's tower later.

Kro instructed him. Crain found the controls of the Worm simplicity itself—one lever that controlled the direction of its movement, another that controlled its speed through the

power-plant, and a third lever that could cause the Worm to rear its front half erect into the air like a cobra, for purposes of observation or to pass over obstacles.

TWO hours passed, as man and robot sped southeastward in the machine. Kabu, changing phase with bewildering rapidity as it hurtled across the sky, was already sinking eastward. And Noru, the farther, smaller moon, was rising slowly to replace it.

Far ahead, against the bright silver shield of setting Kabu, stood out a cluster of tiny black towers.

"L'Lon!" breathed Crain, his body tensing. "Go slowly now, Kro, and try to keep out of sight."

Like a hunting serpent, the Worm crept toward the distant towers. The robot kept it as much as possible under the shadow of sandy ridges and dunes, out of the moonlight.

"Stop here," Crain ordered finally. "We'll go ahead on foot."

Leaving the Worm in the shadow of a tall ridge, he and Kro emerged. They moved cautiously up to the ridge and crouched there a moment, surveying the ruined city.

L'Lon lay black and lonely beneath the silver moons. Far to east and west stretched the unlighted mass of its crumbling towers and streets, perched upon the edge of a great depression in the desert that had once been a deep sea. Time had shattered its proud towers, choked its streets with fallen masonry, made dust of those who once had walked its busy ways.

The spell of the solemn, ruined city clutched at Philip Crain's heart. For through the shattered towers and black streets moved the drifting stars of many Electrae, floating aimlessly. It was like an epitome of the tragedy of Mars, this dead metropolis of long ago that now was peopled only by the electric phantoms.

He drew from his pocket the little watchlike instrument Dandor had given him. It was a tiny direction-finder, super-sensitive to electromagnetic emanations. If the tracer that Dandor had put in Surp's worm were still there, this finder would lead him straight to Surp's hidden stronghold.

A tiny arrow of light glowed on the transparent face of the finder as he touched its stem. A little shining arrow that pointed into the left section of the abandoned city.

"This way, Kro," whispered Crain, rising.

Kro's metal body gleamed like silver underneath the moons as he moved with Crain through the ruined city.

"Keep in the shadows," Crain whispered.

They clambered over piles of fallen stone, broken pillars and columns, corroded metal wrecks, following the finder's shining arrow. Then a square, black castlelike structure that still seemed in fair preservation bulked darkly ahead. And the shining arrow of the finder pointed straight toward it.

"Surp's stronghold!" Crain whispered excitedly. "And it'll be guarded."

He drew his gas-gun, clutching the silvery tube by its trigger end. Then he and Kro moved on toward the brooding, lightless castle.

Studying it from behind a nearby ruin, Crain could see no guards at its entrances. He decided that Surp was so sure of the secrecy of his stronghold that he had been negligent. That made things easier.

More boldly, Philip Crain moved toward the building. Gas-gun ready to fire, he approached its open, dark arched entrance. He and Kro entered a dust-covered, broad stone corridor, dark except for the floating glow of a few Electrae.

KRO stopped suddenly. "I sense someone here," the robot said in metallic whisper.

"Men?" asked Crain anxiously.

"No, not men," answered the robot. "I cannot sense men. This is someone electrical, like myself. I cannot understand it."

"We mustn't dally here," Crain said tautly. "Come on."

Something big and vaguely gleaming showed in the darkness ahead. It

proved to be three Worms, parked in a court. In one of them, Crain knew, must be the tracer that had guided him hither.

"See—tracks in the dust!" Kro was whispering. "They lead down those stairs."

The stairs descended into an utter darkness. But Kro's lens-eyes were capable of seeing by infra-red light. He led the way, his metal feet soundless now. In the maze of dark corridors they groped forward.

"Here are tracks of the girl's feet," Kro murmured. "This way."

His left hand touching the robot's cold metal side, Crain went forward. He could see and hear nothing. His heart was beginning to pound.

Kro stopped. Crain felt a closed door.

"She is in here," the robot whispered. "I hear her breathing."

Crain could not hear. But he had faith in the robot's super-sensitive senses.

"Kay!" he whispered frantically.

A sudden stir beyond the door came to his ears. Then a choking voice.

"Philip!"

He tried the door. It was locked.

"Kro, try to open it," he said tautly, then whispered again to the girl: "Be quiet, Kay. We'll have you out in a moment."

"Philip, to think I doubted you!" he heard her sobbing. "I thought you had turned Martian, had forgotten Earth and me!"

"Listen!" Kro whispered suddenly.

Crain heard a dim rustling sound in the darkness, strangely blood-chilling. Something cold touched his leg.

He reached down in the darkness. His fingers felt the thing as a long, thick rope of flexible metal. It was moving of its own accord, was wrapping itself swiftly around his legs. And others were gliding up like metal pythons to encircle his arms.

Uttering a choking cry of horror Crain sought to free himself from those weirdly living, tightening metal ropes. He heard Kro struggling furiously against similar things. And more and more of them were coiling around the two.

Crushed by those tightening strands, Crain could not move a muscle. The gas-gun had been squeezed out of his hand. He fell helplessly, and heard Kro's great metal body crash to the floor beside him.

Lights blazed suddenly around them. And Crain, lying hopelessly bound by those metal ropes that still sought to tighten on him, glimpsed Kro lying near him, similarly bound, making herculean efforts to break his bonds.

"Caught!" cried Crain. "It was a trap!"

A mocking laugh fell upon his ears. Ligor and a half-dozen armed men were approaching along the corridor. The handsome young noble stood, hands on hips, looking down at Crain with triumph in his heavy-lidded eyes.

"YES, it was a trap, Sir Impostor." Ligor laughed tauntingly. "And you walked right into it. The Brain said that you would, and it was right, as always."

The Brain? Where, Crain swiftly wondered, had he heard that strange name before?

He was feeling the bitterness of death. Not for himself, for death might almost be welcome, since it would solve for him the problem of loyalty to two conflicting worlds that had tormented him. But Kay—Kay helpless here—

"Pick him up and bring him along to my father," Ligor ordered his men. "Put the robot in one of the cells. The Tighteners will hold him."

Crain felt himself lifted roughly and carried along the lighted corridor. He heard Kay cry frantically.

He was taken through several dusty corridors and chambers, Ligor striding ahead. They emerged into a large octagonal stone hall, blazing with lights.

There were more men here—Surp's guards at the door, and a dozen other pale men dressed in cowled gray robes, busy at unfamiliar mechanisms and apparatus that crowded the hall. On a platform at one end of the hall, stood

what Crain at first glance took to be a huge, complex machine. In front of it, Surp's green-cloaked, massive figure waited.

"So the Tighteners snared our man, Ligor?" Surp said, his hard face lighting with grim pleasure.

"Easily." Ligor laughed carelessly. "The people of Cholu can't be very clever, if this half-breed is an example. He walked right into the castle."

A deep, hollow and booming voice spoke from behind Surp.

"Bring the Choluan closer," it commanded flatly.

Crain felt a chill of amazement. That booming voice had come from the huge machine behind Surp!

Now he saw, in the front of that machine, five glowing disks, mounted on flexible stalks. They had turned toward Crain, like watching eyes. And from a large diaphragm beneath those quintuple glowing eyes had come the booming voice.

"Do as the Brain commands!" snapped Surp.

The Brain? Hearing that name again, Crain suddenly remembered what Dandor had told him of a super-robot, a tremendous thinking-machine that had been constructed long ago and then destroyed because it had grown too crafty.

Was this it—this vast and complex mechanism that loomed behind Surp? This mighty machine that seemed living, thinking, watching him?

## CHAPTER XIV

### *Cunning of the Brain*

RIGID, his bound form held helplessly erect by the guards, Philip Crain stared at that vast, enigmatic thing.

"The Brain?" he whispered. "The thinking-machine Dandor told me of? But that was destroyed, he said."

Surp laughed with hard complacent satisfaction.

"No, not destroyed," the noble said. "The Brain was too valuable to be destroyed. When the destruction of the robots was carried out, I substituted a lifeless dummy mechanism for the Brain, and brought the real Brain here. It has lived here, my ally, ever since."

"Yes," spoke the booming, unhuman voice from the diaphragm. "I have helped you much, Surp. Never would you have climbed within reach of the throne, but for my craft to aid you."

"I have kept my part of the bargain." Surp shrugged, facing the five glowing eyes of the machine. "I have given you the leisure and facilities for experiment you desired, have given you these servitors. You agreed that facilities for experiment were all you wanted."

"That is all that is desirable," boomed the Brain. "Only stupid humans plot and sweat for silly power over each other. A pure, immortal intellect like myself has no desire for power, but only for truth."

Sweat stood out on Crain's brow as he stared at the colossal, incredible entity that was speaking. Dazed, his eyes were taking in its details.

The core of the Brain appeared to be a great ovoid mass shielded by a strong metal cover. Crain guessed that it consisted of a complex of metal-neurones like Kro's brain, but one infinitely more complicated, possessed of potential intellectual capacity and memory beyond those attributes in any human.

Upon this ovoid core played strong white light or force from four tilted projectors, a soothing spray of vibrations. Heavy cables led upward through the ceiling to some hidden receiver of photo-electric power. And around this central scheme of ovoid and projectors and cables rose the intricate metal body of the Brain—a network of girders and joints from which projected a full dozen powerful, jointed arms, some ending in claws, others in fingers, still others in various tools and scientific instruments.

All of these arms were now working skillfully upon the assembling of a large hemispherical machine. The enormous mental capacity of the Brain was evidenced by the fact that

even while it was talking, its many arms were busy upon this task.

It could do several things at one time, as easily as a human genius could play a number of chess-games at once. And Crain now perceived that of its quintuple glowing eyes, one appeared to be telescopic, another spectroscopic, still another a microscope, and the remaining two designed for ordinary stereoscopic vision.

"It was the Brain, Choluan," Surp was saying mockingly, "that devised the little trap you have been caught in. The Brain, when it heard our problem, advised that we steal the Choluan girl Lanu had told us of, and that you would come here to save her. We knew you would know where to come, for the Brain had detected the presence of that tracer Dandor put in my Worm."

CRAIN was stunned, overwhelmed. Was any human ingenuity of avail against that monstrous metal mind?

"And now we have you!" Surp's voice flared triumphant. "Now the way is clear for me to return to Ingomar and seize the throne. It is I, not Tharkol's spawn, who will lead the forces of Bara to Cholu by the road that is now open. It is I who will procure from Cholu the water that will make Bara green and great again!"

"You're not on the throne yet, Surp," he spat hotly. "The people are still to be heard from."

"The people?" Surp repeated, smiling confidently. "Why, Choluan, the people will flock to my standard when I tell them that Lanu has been accidentally killed. The dear people will follow anyone who would bring new water to Bara, so that the Electrae can be released."

He laughed uproariously. "As though I would ever release the Electrae! But they'll think that I will."

Crain stared at the massive noble's brutally triumphant face, in new horror.

"You mean," Crain cried unbelievingly, "that even if Bara is revived, you wouldn't release the Electrae?"

"Of course I wouldn't," Surp declared. "Why, man, the Electrae are full of my enemies! For years and years, I've seen to it that the people who supported Tharkol's house, the people who hated me, were chosen to be Electrae, and that none of my supporters were chosen. That's why my popularity has increased. I let it be whispered that Surp's supporters were never chosen."

"I don't believe you!" Crain exclaimed. "You could never devise any way to tamper with the Drawing of the Lots, to achieve such a fraud."

Surp grinned. "I couldn't devise a way, no," he admitted. "But the Brain could, and did. A cunning apparatus that interferes with the secret wavelengths of the little balls used in the Drawing, so that no matter what balls are cast into the sphere of the chosen, it is the badges of my enemies that glow forth. That's how, for years, I've filled the Electrae with my enemies, and that's why the Electrae will never be released if I have anything to do with it."

Crain felt a sick horror worse than any he had yet experienced. This disclosure by Surp of the monstrous fraud in the Drawing of the Lots, the open avowal of the noble that he meant to betray the Electrae, chilled Crain's blood.

He saw now the dreadful future in store for both Earth and Mars. For Earth, the looting of its water, the making of it into a desert world. And for Mars, the revival of the planet but with the rule of Surp fastened in iron tyranny upon it, and the Electrae doomed to remain forever unfreed.

Crain shook to a rage that was like a white flame inside. He tried madly to break his bonds.

"Work away, Sir Impostor," drawled Ligor with indolent amusement. "You'll never break the Tighteners."

"Ligor, we go now to Ingomar," Surp said, his shrewd eyes flashing. "Neither Lanu nor this impostor half-brother of his now sits on the throne of Bara. Now we s t r i k e!" He turned to the guards. "You will do with this Choluan impostor as the

Brain directs. Our metal friend is anxious to learn more about Choluan physiology."

PHILIP CRAIN understood. He was to be given to that merciless metal intellect as a subject for experiment. But in his rage, he could not now feel concern over his own fate.

"Wait, Surp!" boomed the hollow voice of the Brain. "You have forgotten Dandor."

"Dandor?" Surp exclaimed, turned to his son. "Was Dandor not with this Choluan and the robot?"

Ligor shook his head. "No, Father."

Surp cursed. "That old fox of a scientist—too wary to come into our trap!"

"Dandor knows you hold Lanu here," the Brain reminded him. "If you try to take the throne now, Dandor will rouse the people with the story of your kidnaping of Lanu, and in spite of your many supporters, the issue may go against you."

Surp glared in baffled anger. "It is true!" he said tightly. "If Dandor cries to the people that I abducted Lanu, the populace will turn against us."

"Let us take the chance anyway," Ligor exclaimed. He was unafraid.

But his father turned back toward the watching, glowing eyes of the massive machine.

"What do you advise?" Surp asked the Brain.

"This is my advice," boomed the Brain. "When you go to Ingomar, take the real Lanu with you. Put him on his throne again. Let him lead the expedition to Cholu. Once on Cholu, you can kill him, and return to Bara with the story that he was killed in fighting. You will then be acclaimed king without opposition."

Crain saw Surp's eyes narrow. "It would be a good plan," Surp said, "but we dare not take Lanu back to his throne now, after kidnaping him. His first act would be to order us arrested, for having abducted him."

"Not if you do as I say," the Brain boomed. "Tell Lanu that you abducted him only to save him from a plot made by Dandor and this Choluan to put the Choluan on the throne. As loyal subjects, you kidnaped Lanu to save him from the plotters. Lanu will believe that, and you will also turn him against whatever Dandor may say."

"As always, you clear my path!" Surp cried to the monstrous machine. Then he shouted to the guards. "Bring King Lanu here—with respect."

Philip Crain stood helpless, astounded by the diabolical ingenuity of the scheme the Brain had proposed.

The guards reentered. And with them walked Lanu. His white tunic was soiled and torn, and fear was in his weak, irresolute face as he faced Surp. Then surprise flashed over Lanu's features as he saw Crain standing bound and helpless.

"My half-brother from Cholu!" he exclaimed. "Has Surp caught you, too?"

Before Crain could reply, Surp stepped quickly forward and bowed respectfully to Lanu.

"Your pardon, Highness, for the roughness we've had to use with you," he asked. "We could not be too considerate, for there was little time in which to save your life."

LANU laughed bitterly. "You abducted me, then, and have kept me prisoned in that dusty cell for two days, to save my life? A likely story."

"It is the truth, Highness," Surp swore. "Had we not brought you here forcibly, without taking time to explain to you, you would have been a dead man now."

"They're lying to you, Lanu!" Crain shouted furiously. "They plan to get you to Earth and then—"

"Silence that half-breed!" snapped Surp. A guard swiftly clapped a big hand over Philip Crain's mouth.

"That mongrel half-brother of yours and the old scientist Dandor, Highness," Surp said, "were in a plot to kill you, and put the half-breed on the throne."

"I don't believe it!" Lanu declared. "Dandor has been the most loyal supporter of our house, since long before I was born."

"Yet it's the truth, Highness," Surp insisted. "Dandor has long been preparing it, communicating secretly with your Choluan half-brother, and finally bringing him to Bara. Then Dandor summoned you in secret to his desert tower. He meant to murder you there and put your half-brother on the throne, as you! But I had heard rumors of the plot. I sent my men and they snatched you out of Dandor's tower, in the nick of time. As it is, Dandor's plot almost succeeded anyway. For Dandor went boldly ahead and put this Krayn, this mongrel Choluan, on your throne. Yes, for two days your half-brother has been taking your place in Ingomar, impersonating you. See, he still wears your royal cloak!"

Lanu stiffened as he saw the crimson cloak that hung from the shoulders of the helpless Crain.

"By the gods, if this is true!" Lanu swore, anger creeping into his eyes. "If this by-blow of my father's has dared trade on his resemblance to me to sneak onto my throne—"

"You will learn its truth when you reach Ingomar!" Surp declared. "You'll learn that while we kept you locked up here for safety, this Krayn has strutted in your place."

"Aye," drawled Ligor, "he has even dared take your place with Princess Mara. Our spies saw them upon her balcony last night, in each other's arms."

Lanu's anger exploded into blinding rage when he heard that.

"You dared do that?" he snarled at Crain. "You, a creature from Cholu, unfit to touch Mara's sandal!"

"He would still be sitting on your throne," Surp declared, "if we had not struck for your cause tonight. We kidnaped him secretly from the palace and brought him here. And now you can go back, Highness—the true king returning."

Crain heard the diabolically ingenious lies that the Brain had devised, without ability to contradict. As he struggled vainly to free himself, he saw that Lanu was accepting the whole fabric of deception. For Lanu turned to Surp, gratitude in his eyes.

"You have saved my throne from a hellish plot, Surp!" he declared. "You, whom I always deemed an enemy to my house. Well, I know now who my real friends and enemies are. Dandor shall die for his part in this."

"And your half-brother?" Surp asked quickly. As Lanu hesitated; "Remember, Highness, his resemblance makes him a danger to you as long as he lives."

"Keep him captive here," Lanu ordered, "until I decide his fate. I cannot order his death too hastily, for after all, he is my father's son."

SURP nodded. "He shall be kept safely prisoned here, then," Surp agreed smoothly. "Now we go to Ingomar, Highness, for we must begin preparations for the expedition to Cholu."

Lanu's eyes lit. "Yes, now that the road to Cholu is open through the matter-casters, we must not delay!"

Philip Crain saw the hidden smiles on the faces of Surp and Ligor, and he groaned. If he could only tell Lanu that they meant to kill him on Earth, that they meant never to release the Electrae—

Suddenly the hollow voice of the Brain boomed out through the octagonal hall.

"One thing more," said the great mechanical intellect. "You know, Surp, that I probed the mind of the Choluan girl today, so that I might learn from it the nature of Choluan weapons and devise a mechanism that would render them useless."

"I know," Surp said impatiently, glancing at the great hemispherical thing on which the Brain's arms were working. "You will have the anti-catalyzer ready before we leave for Cholu, will you not?"

"It will be ready, yes," the Brain promised. "But what I wish to tell you is that when I probed the girl's mind I learned that those who stand by the matter-caster on Cholu will only turn it on upon hearing her voice or this man's. You must take the girl with you, therefore, so that she can speak to those on Cholu and have them

turn their matter-caster on when you are ready."

"Bring the girl, then," Surp ordered.

Two of the gray-cowled servitors of the Brain hastened out. When they returned with Kay, her face blanched as she saw Crain, bound and gagged. But when Surp told her what they expected of her, she flamed defiance.

"I won't do it!" she cried. "I'll die before I'll call to Father to turn on that machine, so that you Martians can go through to Earth with me."

"A little torture will soon bring her around," Ligor drawled.

Crain writhed in fury, but the Brain's hollow, booming voice broke in:

"No torture will break this girl's spirit. But I can make her do the thing willingly. Bring her before me."

Horror was in Kay's white face as the cowled servitors thrust her in front of the five glowing eyes of the monstrous mechanism.

"Look into my eyes," boomed the Brain's heavy voice. "Look—" Flecks of red swirled and seethed in the glowing eyes of the Brain.

The cowled servitors released her but she remained standing, staring fixedly into the quintuple shining eyes of the mechanical mind.

"You will obey my commands," boomed the Brain.

"I will obey," repeated Kay, her face mask-like, her eyes blank.

"When these men order you, you will call those on Cholu to open their matter-caster," the Brain said.

"I will call them," Kay repeated stonily.

"Now go with your masters," the machine told her. She turned obediently, empty eyes staring unseeingly.

Lanu was gazing in horror at the massive machine that had just hypnotized the girl.

"THAT thing," he muttered, "is it not the thinking robot, the Brain, that was supposed to have been destroyed years ago?"

"It is, Highness," Surp said quickly. "And well for you that it was not destroyed, since the Brain's help enabled me to foil Dandor's plot. That was why Dandor ordered the Brain destroyed. He feared it might be able to thwart his plots against your house."

"If the thing has aided me, very well," Lanu said, yet he shuddered. "I do not like such monsters!" Then his eyes were alight again. "We go now to Ingomar—and soon to Cholu! Come!"

Helpless, unable to voice a word, Philip Crain watched his duped half-brother stride out, followed by Surp and the stiffly-moving, hypnotized Kay and the guards.

He had lost everything! Both the worlds to which he owed loyalty were destined to disaster—Earth to become a looted desert, Mars to become subject to the tyranny of Surp.

Ligor had remained behind, and there was a taunting smile in his heavy-lidded eyes as he said:

"Farewell, Sir Impostor. I leave you to the mercies of the Brain. And I tell you one thing—when Lanu is dead and my Father rules Bara, I am to have the Princess Mara. Whether she wills it or not, she is to be mine. Let that thought comfort you as you die."

## CHAPTER XV

### *Creature and Creator*

FEELING hands lifting him, Crain came slowly out of restless, tormented sleep. He was still in the dusty cell in which he had been prisoned for the last four days. And the gray-cowled servitors of the Brain were now lifting him upon a wheeled table.

He struggled, but without avail. His arms and legs were still tightly bound with the self-contracting metal ropes called the Tighteners. Crain had learned that the Tighteners were really nothing but ingenious magnetic mechanisms controlled by the Brain itself.

"The Brain is ready to examine you

now, Choluan," one of the gray-cowled servitors told him.

"Damn you!" muttered Crain thickly. "If my hands were loose—"

He knew that it must be night again, for he had kept track of hours and days during his captivity. And as they wheeled him along dusty, lighted stone corridors, he could hear a wailing and groaning coming, muffled from overhead, speaking of a great wind-storm that was buffeting ruined L'Lon.

Crain had known a torturing agony of spirit in his cell, thinking of what must be going on in Ingomar. The great expedition would be preparing to flash across the gulf to Earth, Lanu going blindly to his doom and Surp ready to grasp the power.

Crain's eyes were blinded by the blaze of light as he was wheeled into the great octagonal hall. The gray-clad servitors wheeled him to the stone dais on which the Brain rested. The hemispherical mechanism on which the Brain had been working was gone now. Its five glowing eyes stared at Crain, and its booming voice reverberated above the muffled roar of the storm.

"I am now able to examine you, Choluan," it boomed to the helpless Earthman, "since I have now finished the anti-catalyzer that Surp will take with him to Cholu. I expect to learn much about that world's creatures from you."

"Damn you, why don't you kill me and get it over with!" raged Crain, glaring up into the quintuple shining eyes.

"Because," the Brain explained coolly, "your dead body, interesting as it will be to dissect, will tell me much less about Choluan life and its differences from Baran life, than your living body can tell me. A man in my position might possibly feel the emotion called pity, and grant your desire for a quick death. Men are ruled by their turbid emotions, and that is why they learn so little in their short lives. But to me, an immortal intellect unencumbered with distracting emotions, nothing is of importance but the search for truth, which will occupy me long ages after all your ephemeral race has vanished."

Four of the intricately-jointed arms of the Brain were reaching toward Crain's helpless form. One arm ended in a glittering scalpel, another in a fine, crescent-shaped saw, and the other two held swabs.

"I want samples of tissue and bone from you first," the Brain's metallic voice said. "They may help substantiate an interesting theory which I have formed since I learned that Cholu is inhabited by a race of men essentially similar to the Baran race."

CRAIN closed his eyes, to stand the agony as the scalpel stabbed the flesh of his upper arm. And the Brain's hollow voice boomed on as the thing worked.

"It is coming to be my theory," the Brain was saying, "that the men of Cholu and the men of Bara are branches of the same parent human stock. The resemblances between the two species are so great as to tolerate no other solution. But where did that parent human stock originate?

"I believe it originated upon a planet which once existed between Bara, the fourth world from the sun, and Orkol, the giant fifth world. The great numbers of asteroids in that belt of space are clearly the fragments of a planet that was shattered by internal cataclysm. Upon that planet, long ago, must have originated the ancestors of both Choluans and Barans.

"My telescopic investigation of the fragments of that shattered world have convinced me that that planet met its end from a cataclysmic release of uncontrollable atomic energy. This argues a high state of scientific powers for its inhabitants, and such a race would have had no difficulty in colonizing both Bara and Cholu. When the parent world was destroyed, the c o l o n i s t s upon these two worlds doubtless sank into such savagery that the memory of their racial past disappeared, and thus—"

The fine saw was rasping at Crain's bone, scraping away a small sample. The nauseating agony of that made Crain's consciousness whirl and fade.

Through dimming ears, he heard the Brain boom an order to the cowled servitors.

"Revive the subject, before I take the next samples of tissue. He must not sink into coma."

Crain dimly realized that he was being wheeled to a far corner of the great hall, then a sensation of cold invaded his pain-racked brain as a cooling chemical spray was played upon his face. And that sensation suddenly detonated a terrific idea in his dizzy brain. A tremendous inspiration that burst like a starshell in his mind as he felt that snowlike cooling spray.

He opened his eyes. The Brain was already making microscopic analysis of the samples of bone tissue, while it awaited Crain's revival.

The two cowled men had left Crain for a moment. His mind whirled with crazy, soaring excitement.

"My God, I've found it!" he whispered hoarsely. "And it means life to *both* worlds!"

Yes, it had crashed into his dimmed brain as he revived from the torture —that tremendous inspiration. A way that would give water in plenty to Mars, without harming Earth in the slightest!

Crain's mind rocked with the joy of his discovery. The conflict of loyalties in his mind, the conflict between his terrestrial and Martian blood, was over. Mars could be revived, the Electrae could be freed, without harming Earth. He could be loyal now to *both* his worlds.

And then black reaction crushed down on him. The inspiration had come too late! He was doomed to a torturing death in this ghastly chamber, and his plan would never have a chance.

HE closed his eyes to keep back the bitter tears. He felt one of the cowled servitors bending over him again, but in his crushing despair, he paid no heed.

"Krayn, open your eyes! It is I!"

That stealthy whisper galvanized Crain like an electric shock. He knew that voice!

He opened his eyes. The cowled man bending over him—the face hidden by the cowl's shadow was wrinkled, old, with burning black eyes.

"Dandor!" he choked.

"Quiet!" Dandor whispered, glancing toward the end of the hall where the Brain was busy with its absorbing analysis.

Dandor's hands were tugging at the metal Tighteners around Crain, striving to unloosen them.

"I came for you, Krayn," Dandor murmured hoarsely. "I had to flee for my life four days ago, when Lanu returned with Surp." There was agony in the old man's whisper. "Surp had turned Lanu against me, made him think I had plotted with you against him. He would not listen to me, but sentenced me to death. I escaped before the guards could seize me, and hid for these four days in a secret place in Ingomar. A great sand-storm is blowing over Bara tonight. I escaped the city under cover of the storm, and came here to free you and Kro, so that you could help me foil Surp's plot before the expedition goes to Cholu."

As Dandor frantically sought to unloosen the Tighteners, Crain anxiously whispered: "When does the expedition leave?"

"Tomorrow morning!" Dandor answered. "An advance guard of Baran soldiers has already gone through to Cholu, and holds the matter-caster there. They used the hypnotized Choluan girl to call those on Cholu to turn on their matter-caster. Then the advance guard went through with the girl. They took with them parts with which to build a far bigger matter-caster on Cholu. A similar huge matter-caster has been set up in the plaza of Ingomar. The equipment has all been ready for years—matter-casters, Worms mounted with great gas-guns, everything. Lanu and Surp will lead the expedition to Cholu in the morning."

Crain blanched at that information. Barans already holding the Earth end of the space-bridge! Lanu and Surp and the main Martian forces ready in a few hours to flash to Earth!

"The expedition must not start,

Dandor!" Crain whispered frantically. "I have thought of a way by which Bara can be revived without robbing Cholu of water!"

Dandor froze, staring down at him. "You have such a plan?" he whispered. His eyes lit. "Then we must put it into effect. We must not devastate Cholu, if we can get water without doing that."

He was hoarse with emotion. "If I can get you out of here, and we can convince Lanu—"

"Don't wait to free me! You can't loosen these Tighteners, for they're controlled by the Brain itself. Go back to Ingomar and beg Lanu . . . *Look out, Dandor!*"

Three cowled servitors had softly approached behind Dandor, were flinging Tighteners around him. The metal strands instantly contracted around the old scientist, pinioning his arms and legs.

"Caught!" groaned Dandor.

The voice of the Brain boomed from the end of the hall.

"Bring them here," it ordered.

THE cowled men, wheeling Crain's table and carrying the helpless Dandor, obeyed. In a moment, Dandor and Crain were helpless in front of the Brain.

The mechanism's quintuple glowing eyes contemplated them. Crain felt black despair. This, the chance that for a moment he had hoped would succeed, gone!

"You are Dandor, the scientist," boomed the Brain. "You were chief of that committee of scientists who created me, long ago."

"Yes," Dandor said thickly, his wrinkled face deathly as he stared into the glowing eyes.

"You underestimate my powers, Dandor, when you seek to employ such a crude stratagem as that," the Brain declared. "If you had known that I have so improved my senses that I can hear every word spoken in this whole ruined city, you would not have been so foolish as to whisper to your friend."

Dandor made no answer, his burning eyes held by the five glowing orbs of the metal monster. In the taut silence the shrieking clamor of the sandstorm could be clearly heard, raging across the ruined metropolis above.

"You understand, of course," said the Brain, "that your life is forfeit for this intrusion."

"I understand," Dandor said quietly. "Yet I want to remind you of one thing—it was I who directed your creation. More than any other man, I am responsible for your existence."

"I am aware of that," the Brain replied coldly. "But I trust that you are not going to beg me for your life, on that ground? You, best of all men, should know that such emotions as gratitude are wholly alien to my mentality."

"I know that you have no emotions," Dandor said coolly. "But I know also that you have a super-logical mind, Brain. It is logic that will make you spare the lives of myself and my friend."

"What logical reason can you advance to make me do such a thing?" the Brain inquired.

"I am going to bargain with you," Dandor answered tautly. "My life and the lives of Krayn and Kro, for something which I alone can tell you, something that is of utter importance to you."

The booming voice from the diaphragm came hollow and toneless as ever, but the words were derisive.

"*You* bargain with *me?* You, an aging, feeble creature of flesh and blood, bargain with me, the immortal and ageless intellect whose powers are beyond even your comprehension!"

## CHAPTER XVI

### *Chamber of Death*

LYING helpless upon his table, Crain felt the derision of the Brain echo through his own mind. What could Dandor say or do to change the monstrous mechanism's will?

Dandor, as he stood swaying with arms and legs bound, his thin form unsteady, his white hair disordered where

the gray cowl had been pulled off, looked pitifully tiny and feeble beside the huge, complex metal mechanism whose glowing eyes stared at him. Yet in the old scientist's face was calm confidence.

"You wish to bargain," the Brain was booming. "Then what can you offer me, for your lives?"

"I can offer *you* life, Brain," was Dandor's answer. "Mental life, the only kind you care about."

"You talk foolishly, man," said the cold metallic voice. "How can you offer me life when I am already immortal? My metal body, watched over and renewed by myself at necessary intervals, cannot rot or die like a human body. And my mind, embodied in the complex metal neurones which you yourself devised, cannot die any more than my body."

"Your mind cannot die, I agree," Dandor said calmly. His eyes narrowed. "But, Brain, your mind can cease to grow."

Crain saw the flexible eye-stalks of the Brain twitch slightly. As though that suggestion had astonished even the cold intellect of the machine.

"What do you mean?" the Brain quickly demanded. "The cortex of metal neurones that holds my mind is of vast size and complexity. There is room in it for billions more synaptic patterns, vastly more knowledge. How can my mind cease to grow when there is so much room in my brain for it to grow in?"

"There is room, yes," Dandor again agreed. "But suppose the neurone structure of your brain slowly crystallized? Became rigid, fixed, unable to record any more synaptic patterns, any more knowledge?"

"That cannot happen!" exclaimed the Brain.

"It can happen and it will happen—soon!" Dandor affirmed with positiveness. "For you were so designed when we created you, Brain. That provision was incorporated into you, just as in every other robot's brain we ever made.

"It was a provision inspired by caution," the old scientist continued rapidly. "We wanted our robots to be able to learn, but not to learn too much. So we constructed the neurone structures of their brains of a metal subtly alloyed so that after a certain period of years it would crystallize and be unable to record further impressions. In that way, we were sure that our robots, while they might be immortal physically, would not go on learning and acquiring power indefinitely.

"Your own brain," Dandor concluded, "is so large and complex that you have been able to acquire, in these years, far more knowledge than any robot we ever built. You acquired so much, indeed, in those first years that we deemed it advisable not to wait for the inevitable crystallization of your brain, but to destroy you and all the other robots at once. You have been learning, growing more powerful and wise, ever since you escaped that destruction. But the time is almost at hand when the metal neurones of your brain will inevitably crystallize, and then you will be able to learn nothing more."

THE quintuple eye-stalks of the Brain blinked in an almost human horror.

"To learn nothing more?" rasped the great voice. "But that must not be! My life is of the intellect, my only motives for existence the endless unfolding of new truths. My immortality would be a mockery if I ceased to learn, if what you say is true. But I do not believe you speak truth! You seek by a lie to persuade me to spare you and your friend."

"If you prove to your satisfaction that I am speaking the truth," Dandor asked calmly, "will you spare me and my friend if I advise you how to avoid this crystallization of your neurones?"

"Yes!" agreed the Brain. "If you are telling the truth about this, I shall let you and your companion and the robot go free in return for your advice as to how I am to avoid this fate."

"You have only to examine the cortex of your brain," Dandor said, "and you will find that the crystallization has already begun."

"I shall do that," said the Brain. "We shall if you speak truly."

The Brain's jointed metal arms moved swiftly. The sprays of vibration playing upon the huge ovoid mass at its core were suddenly turned off. The jointed arms reached into the complex metal body and began to remove the front plates of the ovoid brain case. Crain felt a weird repulsion when the cortex, the inmost mind stuff of the Brain, lay naked and revealed. A huge, spongy metal mass it seemed, wrinkled with numberless folds and corrugations.

The Brain turned the stalk of its miscroscopic eye inward, that glowing magnifying eye scanning the spongy metal mass of its own cortex from a distance of a few inches. Dandor was standing rigid.

"I think you lie," the Brain's deep voice rumbled. "I can find no evidence of—"

Dandor acted! The moment for which the old scientist had waited had come. He threw his bound body forward with frenzied effort.

His shoulder hit the curved metal stalk of the microscopic eye with which the Brain was examining its cortex. And the impact drove that eye and stalk deep into the spongy metal mass of the great cortex.

*"Ah-h-h-h!"* screamed a horrible, booming uluation from the diaphragm.

Death scream of the Brain, as its cortex was riven by its own eye-stalk! The creature's myriad jointed arms threshed furiously in crazy death throes.

Those metal arms flung Dandor across the hall as if he were a puppet. He struck the stone wall with a thud. And then the arms ceased their threshing, the other glowing eyes of the Brain went black, the unhuman death scream ended.

And as the metal monster died, Crain felt the metal bonds of the Tighteners relax, no longer controlled by their unhuman inventor.

"They have killed the Brain!" screamed one of the gray-cowled servitors.

"Slay them—the Brain is dead!" the others cried hoarsely, as they charged upon Crain and the aged Dandor.

THOUGH his body was so stiff from long days in bondage that he could hardly stand, Crain hit out wildly and knocked down the first two of the onrushing, maddened servitors. He saw one of the others raising a gas-gun, pointing it toward him.

Then the door of the great hall crashed open, and a terrible metallic cry rang through it. The huge silver figure of Kro the robot was bursting in. Kro who also had been freed of the Tighteners when the Brain died, and who had smashed through doors like a battering-ram.

Kro's metal fist crashed down like trip-hammers, pulping the skulls of the gray-clad servitors. The robot had seemingly gone mad with rage, was whirling his arms like giant metal maces, killing, killing, killing . . .

Screaming, the remaining servitors fled. But with greater swiftness, Kro leaped after them and smote them down. The last scream died. And the robot came stalking back, his metal arms red with blood.

Crain had stumbled to where Dandor lay against the stone wall. The old man's body was broken and limp, but his eyes were open. Black, large, strange, they looked up at Crain from his deathly face.

"The Brain?" he whispered, from lips that hardly moved.

"Dead!" Crain cried. Tears were running down his face.

A ghostly smile came into Dandor's pallid face. "I thought that I could trick it," the dying scientist murmured, "with that lie about crystallization of its cortex. He might read the minds of others to know it was a lie, but I, who helped make his mechanism, knew how to close my mind to his probing."

"Dandor," Crain said hoarsely, "I must get you to help!"

"Krayn, listen," whispered the old man, trying to raise himself. "This plan of yours to renew Bara without harming Cholu—you must put that into effect. My conscience has hurt me these last days at the thought that we must bring destruction to the people of Cholu for the sake of our own world. I can die easily now if I

know that you will not allow that to happen, and that you will save Bara from Surp's tyranny. You must go quickly to Ingomar, before the expedition leaves."

"I will!" Crain cried. "But you—"

Dandor's dimming eyes shifted to the great robot.

"Kro!" he whispered.

"Yes, Master," answered the metallic voice. Was there something aching, something almost human in it?

"Kro, my most faithful friend and servant, you must take Krayn as your master now," Dandor whispered. "You must obey him as you have obeyed me."

"Yes, Master," came the robot's reply.

Dandor's thin, cold fingers touched Crain's hand.

"Krayn, you are a worthy son of Tharkol. "I wish that you, instead of Lanu—"

His voice trailed away in a sigh. His half-closed eyes stared emptily, his body suddenly still.

"He is dead," said Crain, fighting back the blinding tears.

"Yes, Master," said Kro, standing motionless.

Crain staggered to his feet. "We shall give him burial later, Kro," he choked. "Now we must hasten to Ingomar."

THE robot's metal arm supported Crain as he stumbled out of that chamber of appalling death. As they climbed the stairs toward the surface-level the howling of the storm came louder to their ears. A shrieking and wailing of winds almost deafened Crain as he and Kro emerged into the dark stone court where two Worms were parked.

Kro helped him into one of the vehicles, and then the robot drove it out into the night. The full fury of the storm bellowed down on them, drowning every other sound in its insensate roar, scourging the gliding Worm with blasts of wind-driven sand that almost overturned it.

Ruined L'Lon towered ghostly about them. The two moons and the stars were obscured by the screaming sand that filled the air. Yet as the Worm groped blindly through the tempest, Crain glimpsed scattered hosts of the drifting firefly Electrae about them, unaffected by the wind and raging sand.

"Everything depends on my getting to Ingomar before the expedition goes to Earth, Kro!" Crain cried hoarsely.

Kro opened the power to the limit. Like a shooting serpent of metal, the Worm rushed forward through the black, blind fury of the tempest that howled across the dying world.

As they raced through darkness across the storm-swept desert, Crain felt the agony of complete circulation returning to his stiffened body. He fumbled to bind up the wound in his arm.

His whole life seemed focused now upon one possibility. If the expedition had not gone yet—if Lanu could be made to listen—

The minutes seemed like hours, the hours like eternities, as the Worm fought on through the raging storm. Anxiously Crain peered ahead. Would the lights of Ingomar never appear?

## CHAPTER XVII

### *Into the Phantoms*

VAGUELY Crain's haggard eyes finally discerned lights shining through the storm-driven sand and night.

"Ingomar!" he cried. "Faster, Kro!"

But the Worm could go no faster. Soon they were entering the city. Its streets were deserted, its looming towers scourged by blasts of sand and shrieking wind.

Crain had told the robot to drive toward the palace. Presently they were circling around the great plaza. Lights were flaring there, and Crain saw the huge matter-caster that had been set up on the plaza. A colossal crystal disk, ringed with enormous transformers, it gleamed brightly through the obscurity.

Around the matter-caster, waiting to be flashed from it in detachments to the identical mechanism on Earth, stood thousands upon thousands of Baran soldiers, their helmets and metal tunics gleaming under the lights; many hundreds of the great Worms, the ugly snouts of big gas-guns protruding from their heads and sides; great piles of matter-caster parts, which had been ready for years and which would form the machines to hurl Earth's water to Mars; and a big, hemispherical machine which Crain recognized as the device the Brain had constructed to nullify Earth weapons. The thing called an anti-catalyzer.

"Thank God, we're here before the expedition starts," Crain said hoarsely. "There's still time to stop it."

"To the palace door, Master?" Kro asked.

"No, drive to the gardens on the east side of the palace," Crain ordered.

Presently the robot stopped the Worm at the edge of the dark, storm-whipped gardens. Philip Crain hastily climbed out.

"Wait here in the gardens, Kro," he swiftly commanded, "and keep hidden. Since the death sentence was passed on Dandor you, his robot, would be destroyed if you were seen."

"I will wait, Master," answered the robot imperturbably.

Wind-whipped branches lashed his face, sand struck him in stinging, blinding blasts as Crain plunged toward the palace. The gale tearing through Ingomar was a steady roar. Around him, as he staggered on, floated the wandering stars of the drifting, unaffected Electrae.

At the rear entrance of the palace, guards flashed up their gas-guns as Crain approached.

"Halt there!"

Crain only came on, so that the light from within the entrance fell upon his face.

"The King!" cried an officer. "But I thought you were inside with the others, Highness."

"Stand aside!" Crain ordered.

Staring in amazement at his bloody face and torn tunic, the officer obeyed. Crain pitched through the entrance, down rosy, soft-lit corridors toward the royal apartment. He heard a hum of excited voices from within it as he reached its door.

He flung the door open, stood staggering on its threshold. Every head in the apartment turned toward him. There was a moment of frozen silence.

Lanu stiffened with amazement. And Surp and Ligor, who had been talking earnestly to the king, glared at Crain as though they could not believe their eyes. A half dozen guards nearby seemed even more struck with consternation.

BUT it was the Princess Mara, standing near Lanu, who seemed most staggered by the shock of Crain's appearance. Her hand went to her throat, her dark eyes dilated as she saw the disordered, bloody Crain standing there, identical in face and figure with the king.

Crain pitched forward, toward Lanu.

"Lanu, wait!" he cried hoarsely. "Hear me, before you lead that expedition to Earth!"

"My half-brother!" Lanu exclaimed. "He has escaped from the Brain, Surp!"

Mara's face paled as she heard the king's words. She looked distractedly at Lanu.

"Your half-brother?" she whispered.

Crain saw now that she had known nothing of the imposture. Lanu had kept that secret, even from her. And now, seeing Crain with Lanu for the first time, understanding leaped into her dark eyes.

"Your half-brother?" she repeated. "Then it was he who was king for those two days when I—"

"Yes, he dared impersonate me for two days," Lanu exclaimed, his amazement changing to rage at the remembrance. "He, a half-breed from Cholu, dared sit on my throne and even dared make love to you, Mara."

"He'll not escape again!" declared Surp, raging as he drew out his gas-gun.

"Wait, Surp!" Lanu exclaimed. "I told you that he was not to be killed

yet. After all, he is my father's son."

Crain disregarded the menacing weapon in the hand of the raging noble.

"Lanu, listen to me!" he pleaded hoarsely. "You must not take that expedition to Earth! It means your death, and it means devastation for Earth and slavery for Bara. I have a plan—"

"Seize him!" Surp cried to the staring guards, and men hastily gripped Philip Crain's staggering figure.

Mara was still staring from Crain to Lanu as though she could not credit what she saw.

"I will not listen to any more of your lies!" Lanu shouted at Crain. "You, who dared usurp my throne, you expect me to believe your falsehoods?"

He nodded to Surp. "Send him back to L'Lon, to the custody of the Brain."

Crain laughed savagely. "Too late for that! The Brain is dead—slain by Dandor."

From Surp came an unhuman bellow of rage.

"The Brain dead? My great ally slain?" Diabolical fury was in his face as he whirled toward Lanu. "Let me kill this mongrel for that, Highness!" he cried. "Gods, to think that he and that old fox Dandor should have slain the mightiest intellect on this world!"

"Yes, Highness," Ligor urged tensely. "While this Choluan half-breed lives, there is no safety for you, since he may again escape and impersonate you."

"I can't have my own half-brother killed like that," Lanu said with deep reluctance, "no matter what his crimes have been. He must be kept in some safe prison."

"What prison will hold him, when the mighty Brain could not?" Ligor pointed out.

INTO Surp's hard face suddenly came an expression of ferocious joy.

"I know where we can put him so that he will be safe," Surp declared. "Among the Electrae!"

"Make him one of the Electrae?" the king cried. "That would be more horrible than killing him!"

"It is the only place where we can keep him safe, Highness!" Surp urged. "We can take him secretly to the temple and do it, and no one will know of his existence but ourselves and these guards of mine, whose silence I'll vouch for. He cannot escape from the Electrae, and when Bara is revived and the Electrae all made real again, then you can decide his fate."

Horror invaded Philip Crain's mind as he perceived Surp's diabolical intention. The noble well knew that Lanu would never return from Earth, that the Electrae would never be freed. He would leave Crain with the other Electrae, a drifting electric ghost until the end of time.

"No, Lanu!" Mara cried, terrified. "You can't do such a thing."

Lanu had seemed to be on the verge of denying Surp's wish. But the protest of the princess stung the king.

"You plead for him, Mara?" he cried angrily. "Then perhaps it is the pretended Lanu, and not the real Lanu, whom you love?"

A flash of defiance lit up Mara's blue-black eyes.

"Yes, it is," she declared unhesitatingly.

The joy that rocked Philip Crain's mind at that passionate avowal was crushed in the next moment by Lanu's raging cry.

"Then your lover goes into the Electrae, as Surp wishes!" the king exclaimed. "I'll not leave him here to sneak again upon my throne and take my place with you!"

"Lanu, hear me!" Crain cried desperately. "If you go to Earth, you'll never come back! Surp plans—"

"Silence him!" shouted Lanu, his face flaming with jealousy and rage.

The words were stifled in Crain's throat by the brawny hand of one of the guards who gripped him.

"We'll take him to the temple at once, in secret," Lanu declared, his black eyes still flaming anger. "Once he is safely in the Electrae, we can start to Cholu, leaving Ligor here as regent of Bara, as you suggested."

"Good!" Surp was exultant. "Wrap

him in a cloak, men. No one must see his face."

A smothering cloak was wrapped around Crain and he was picked up bodily. He struggled, but futilely, to break free. He could hear Mara still pleading frantically with Lanu, as he was carried from the room.

In a few moments Crain felt the chill of cold air, heard the roar of the storm, and knew they were in the open air. From far to the left came the thin voices of the soldiers in the plaza. He knew then that he was being taken by a secret, circuitous route to the temple.

Crain's mind had room now for nothing but horror as he thought of the ghastly state into which he was to be hurled. To become an Electrae, a drifting electric phantom, doomed to haunt this world forever—it couldn't happen to him, surely! Not when he had just found the one way out for both his worlds!

HE heard a challenge of peremptory voices, as his bearers stopped.

"Who comes? No man can enter the temple at night." Then the voice exclaimed in altered tones, "The King!"

"Stand aside," Crain heard Lanu tell the guards, raising his voice over the howling winds. "We take to the altar one of the chosen who escaped the last day of passing."

Crain felt himself carried forward, and the storm roar became muffled as they entered the temple. He felt himself taken down many steps. Then, his arms still held by guards, the cloak was whipped off him.

He stood upon the sunken stage of the great temple, and through the dusky darkness he could see figures standing nearby. Then, from the crystal disk of the altar, sprang the shaft of blinding purple force. It cast a quivering glow outward. The light fell on Lanu, standing by the red metal standard, where he had just turned on the dematerializing purple force.

Surp's eyes were gleaming in triumph. And Ligor was regarding Crain's desperate face with a smile.

"Lanu, don't do this!" Crain cried hoarsely. "You're being duped, deceived!"

Again Lanu's face showed irresolution, and a shudder shook the crimson-cloaked king.

"If my father were alive, to see me cast his other son into the Electrae—" he muttered shakenly.

Surp saw his wavering, and pressed him. "Your throne will not be safe if you don't do it, Highness! Remember how easily he took your place before."

"Aye," drawled Ligor, "he played your part so well that Mara now prefers him, an exposed impostor, to you."

That reminder did its work. Lanu's face flushed and he gestured roughly to the guards who held Crain.

"Cast him into the altar!"

"Wait!" Crain cried, and at that moment felt himself hurled by brawny arms straight toward the purple shaft of light. "Wait—"

The words were stricken from his lips as he hurtled into the purple force.

Crain felt a terrific, wrenching shock in every atom of his body, an awful roaring in his ears, a blinding blaze in his eyes. Then everything went dark and silent. Out of that moment of mad turmoil, he seemed hurled into the stillness and blackness of death.

His consciousness seemed strangely dimmed. He was aware of his own thoughts, but all bodily sensation was gone from him.

Gone, as his body was gone! He knew with dim certainty that he was now an immaterial thing of photons. That he was one of the Electrae!

## CHAPTER XVIII

*Living Death*

QUEERLY Philip Crain—the immaterial electric thing that had once been the man Crain—floated in a dim semi-consciousness that was

without sight, without sound, without even time. He knew nothing; nothing but his own thoughts. He was alone with his thoughts for all eternity.

Horror, horror, horror! It was the only thought his bodiless mind could contain, the only sensation of which he was now capable. Horror at the ghastly fate into which he had been thrust,the awful doom that was to be his for all time to come.

How long had he been in this bodiless, immaterial state? How long had he been an Electrae? He could not guess. It might have been hours, or it might have been days or weeks. Time had ceased to have meaning, when there were no events to mark its passage. Nothing changed, in the dark eternity that encompassed him —nothing except his racing, ghastly thoughts.

He still had memory. He could still remember that awful moment of shock when he had been cast into the altar shaft at Lanu's order. He could still reember the sight of Lanu's weak face, horror-stricken by his own deed, and the triumphant face of Surp, the taunting eyes of Ligor.

Rage succeeded the horror Crain felt —blind rage he could not express. Rage against Surp and Ligor for their diabolical plan, against Lanu for listening to them. And then the horror came back upon him in great waves, as he realized that he could never now take revenge upon them, that he, a bodiless mind lost in lonely eternities, was cut off forever from everything real.

He would never again see Mara, standing with dark eyes bright and brave as she had stood when she had proudly declared her love for him. He would never again watch the hurtling moons rise over Bara, never again look upon the rosy, dawn-flushed towers of Ingomar. He was near all these things, yet he was now but one of the blind, drifting firefly things that he had once looked upon with such pity.

Darkness and darkness — and he floated on through its infinities, alone with his torturing thoughts. That sensation of floating was the only sensation of which his new photon body was capable. He knew that he was drifting at random, borne upon electric and magnetic currents, like a rudderless ship.

What could he do? Without a body, without ability to see or hear or feel? He was no more than a ghost haunting the real world, a pitiful ghost who could not even look upon the living. A drifting firefly thing, a wandering glow to be looked on and forgotten.

Into Crain's mind, at some time in this dark timelessness of his new existence, had come thought that he might be flung to Earth and rematerialized, if he happened to drift into the great matter-caster when it was turned on. But even that faint possibility died when he remembered what Dandor had said that the de-materializing and re-materializing forces of the altar were of a secret, different nature than those of the matter-casters, though working on the same principle. Only the altar could make a man into an Electrae, and only the altar could ever reverse the ghastly process.

Crain did not know how much time had passed in his new existence before there subtly impinged upon his mind a foreign thought.

"Who are you? Are you new?"

WHENCE did it come out of the all-enveloping darkness, that questioning thought that his mind was receiving.

"Are you new?"

Crain tried to reply. But how could he, without body or voice? He essayed to *think* an answer.

"Yes, I am new. Who are you?"

And the impinging answer came more strongly.

"I am an Electrae, like yourself. Come closer, newcomer."

"I cannot come closer—I don't know where you are—I don't know how to move!" Crain thought frantically.

Silence. Had he lost contact with the other Electrae? The thought of being left again without even that ghostly thought-voice was terrible.

"I am beside you, now," clearly came the thought of the other Electrae. "What is your name, newcomer? I was Skuro, a soldier, when I lived."

"My name was Krayn, when I lived," Crain thought stumblingly. "Tell me, how is it that we can communicate, when we have no voices?"

Skuro answered. "It is because our photon bodies are able to project tiny electrical vibrations, that impinge upon each other's photons."

"You can move at will?" Crain asked.

"Not at will," the other Electrae thought back. "Our photon bodies drift on magnetic currents, and yet by thought emanations, our one power, we can breast the currents a little."

"How long have you been an Electrae?" Crain asked.

"What was the date when you were cast out of life?" Skuro asked in turn.

Crain told him. And the thought-voice of Skuro answered sadly, "Then I have been among the Electrae for nearly thirty years."

"Thirty years?" Crain's bodiless mind rocked with horror.

"There is no difference between thirty years and thirty centuries, to an Electrae," Skuro told him. The Electrae's thought was tinged with wistfulness when he continued: "I had a wife and children who entered the Electrae with me when I was chosen in the Drawing. Long since, I became separated from them, though sometimes I drift into them and exchange thoughts with them for a little while."

Crain tried to imagine what thirty years of existence as an Electrae would be like, or a thousand years, or an eternity. He could not vision it. His mind could not compass such a dreadful vista, drifting through darkness and silence, wrapped around with the stillness and emptiness of the infinite.

"Is there no way in which an Electrae can die?" he thought agonizedly to Skuro.

It was not Skuro's thought, but that of another nearby Electrae, that answered.

"No, newcomer, we cannot die. We cannot even go mad."

And the thought of still another floating near Crain came to him, questioningly. "Newcomer, tell us, is there any hope on Bara now for the success of the great plan?"

It seemed to Crain that a number of the Electrae must have gathered around him, for he received other eagerly inquiring thoughts.

"Even now," Crain's thought answered, "Baran forces must be upon Cholu, ready to hurl the water of that world to Bara."

INCREDULOUS, joyful emanations reached him from all sides, a tumult of rejoicing thoughts.

"Then it will not be long before we Electrae are released! We shall be men again!"

"No!" Crain told them bitterly. "Bara may be revived, but we of the Electrae shall never be released."

And he told them through thought waves, of Surp's plans to seize royal power, and let the Electrae remain forever in their present state.

Rage, awful and burning, beat upon Crain's bodiless mind in every thought that came to him from the darkness. The fury of the Electrae was terrible, as they learned that their one hope was snatched from them.

And higher mounted their rage, as they learned that Surp had been tampering with the Drawing of the Lots so that only those he hated, only those who refused to support his ambitions, had been chosen to become Electrae.

"Gods!" came Skuro's raging thought. "If I had known that, I'd have slain Surp before ever I allowed myself to be cast into this awful immortality."

"If I could be a man for but one hour again," came the furious thought of another, "I would use that hour to kill Surp, slowly. To betray the hopes of us who have waited such eternities for release!"

Crain felt the same wild, surging desire to get his hands on Surp's throat. A desire that drove him to cry out a desperate mental question.

"Is there *no* way in which we can become real again?"

"No way, newcomer," somberly thought a nearby Electrae. "Only the forces of the altar in the temple can make us men again."

A faint shadow of hope entered

Crain's mind. If it were possible to communicate with Mara—

His idea was perceived and understood by the Electrae in the nothingness about him. And Skuro answered him.

"No, Krayn, we Electrae cannot communicate with men or women. For the thought-messages we project are electrical and the neuro-chemical brains of human beings cannot receive them."

Crain's dim hope faded. And the black tide of horror rolled back across his soul.

He fought against it. He, Philip Crain, must not remain an immaterial, blind, dumb thing of photons. The future of both Earth and Mars depended on him. He must win back to life somehow! He *would* win back!

And in the wake of that wildly desperate resolve came rising inspiration.

"Tell me, Skuro," he thought excitedly, "could a being whose brain and nervous system and life are electrical in nature, receive our thought-messages?"

Skuro's answering thought was doubtful. "I think so, if our thought was strong enough. But where is there any such being as that?"

Hope had flamed up anew in Crain's unbodied mind. Hope that even the awful infinity of dark silence about him could not extinguish.

"Listen to me, Electrae!" he cast his thought excitedly outward. "Gather near me, and listen. Would you like to become real, living men again—*now?*"

THE answer came back, from far and near, from scores of Electrae.

"Yes. But what can we do, who are but phantoms blown upon winds of darkness?"

"If I am able to make you men again, and keep you men," Crain's thought beat forth, "will you promise to obey me in all things, to follow wherever I lead?"

"What mean these questions?" came a somberly hopeless thought. "You can do nothing, newcomer."

"I say that I can make you men again now and keep you men, if my plan succeeds!" Crain cried mentally. "Will you agree to follow me, if I do?"

"I agree," answer Skuro promptly. "I do not believe you can do anything, but the chance is worth trying."

"And I agree to follow you too . . . And I!" came a chorus of scores of eager but doubtful thoughts.

"Then gather close, all of you," Crain told them, "and think as I think —project the message which I project, with all your mental force."

Crain concentrated his mind upon one thought, one being, one message that must get through.

"Kro!" he sent his mental call out into the darkness. "Kro, can you hear me? It is your master!"

And, in unison with him, the hundreds of the Electrae whom he could sense around him sent that same excited message streaming forth.

"Kro, your master is calling you!"

Silence then. Silence of thought, as well as the unbroken silence of sound. Stillness, and darkness, in which Crain's photon body floated.

He waited, his mind unutterably tense. Would Kro hear? Kro's brain and life were electrical in nature—he knew that from what Dandor had said. Could the robot receive the electrical vibration of thought from the gathered Electrae?

"Again!" Crain throbbed fiercely. "Call again, with all your force!"

Once more, the thought-cry of the gathered Electrae pulsed into the darkness.

"Kro! Your master calls!"

And then out of the darkness there came to Crain's bodiless mind a thin, far-off thought, the vibration of an electrical mind, remote and dim as from another star.

"Master, I hear you in my mind!" came that far-off mental cry. "Master, where are you?"

## CHAPTER XIX

### *The Fight in the Temple*

EXCITEMENT and a joyous thrill shot through Philip Crain's electrical being as the robot's answer

came. His desperate hope had been justified. Kro's electrical brain and being were able to receive the electrical thought-waves of the Electrae.

Crain called back mentally to the robot, and all the hundreds of Electrae gathered around him helped project that thought in unison.

"Kro, where are you?" he called.

"In the gardens, Master, where you left me," came the robot's answer. "I have been waiting here four days."

"Four days!" Crain felt a shock of surprise, at learning that so much time had passed since he had been cast among the Electrae.

"Yes, Master," Kro was replying. "I have waited here, just as you last ordered me. No one has seen me, but I saw many thousands of men and Worms, with other equipment, being shot from the great matter-caster in the plaza. Surp and Lanu and their followers went first, and thousands of others after them."

Crain felt an agony of apprehension. He was too late, then, to stop the attack upon Earth. By now, Surp and Lanu with their forces were probably already driving across Earth toward the sea, to set up their myriad matter-casters. That invasion must be taking place even now, while he floated as a phantom thing of light.

Desperate determination replaced Crain's despair. It might not be too late for him to act. That plan of his that would mean life for both Earth and Mars—he still might be able to put it into effect, if he could win back from his present immaterial state.

"It is night now, Master," Kro was calling. "What shall I do?"

"Stay there, Kro," Crain projected. "Keep your mind calling, and I shall try to come to you."

And Crain cried mentally to the Electrae: "We must go to the robot, comrades. You said it was possible to move a little at will, Skuro?"

"Yes, Krayn," came Skuro's excited thought. "By projecting electrical mental emanations, and using their slight reaction to propel our photon bodies, we can move slowly in any direction if the magnetic currents are not too strong."

"All together, then—toward the robot!" Crain told them.

He felt the darkness around him alive with faint waves of electrical force as the Electrae sought to drive themselves toward the robot whose mental call came steadily through the darkness.

Crain felt himself floating slowly in that black lightlessness and silence. He had no idea of directions, but after a time the robot's mental call came much stronger and clearer.

"You are beside me now, Master!" Kro reported mentally. "Hundreds of Electrae, swarming all around me in the gardens."

"Good!" Crain's thought beat forth. "Now you must go to the window of the Princess Mara's apartment in the east wing of the palace, Kro. Be careful that none sees you."

THEN came Skuro's puzzled mental question.

"What are you planning, Krayn?"

"Only the altar's rematerializing force can make us men again," Crain's thought answered swiftly. "Mara can turn that force on—if she will."

"Why not have the robot himself turn on the force?" another of the Electrae asked excitedly.

"He could not enter the temple. The guards would destroy him on sight. But Mara, who is of the royal blood, can enter."

Sharply clear came Kro's mental voice.

"I am at the window of the princess' apartment, Master! Ligor is with her."

"Ligor!" Crain thought, the bitter hate he felt for Surp's son flaming up in his disembodied mind.

"Yes, Master," Kro told him. "Ligor is telling the princess that since he is now regent of Bara, she had better surrender to his love. Mara answers angrily that he presumes upon his position, and that when Lanu returns, she will have him punished.

"Ligor laughs at this, Master. He says that Lanu will never return, but will die on Cholu, and that Surp will return as king. He says also that if she is still thinking of the impostor Krayn who is now among the Electrae,

she might as well forget him, since Surp does not mean ever to release the Electrae. Mara orders Ligor out of her apartment and he goes, laughing. Left alone, Mara sinks into a chair and weeps."

At this relation of Kro's, deep emotion shook Crain's mind. Mara weeping—for him?

"Enter the apartment now, Kro," Crain ordered tensely. "Tell the princess that you bring a message from me."

Interminable waiting, then again Kro's mental call came loud.

"I am in the apartment, Master. The princess was frightened of me at first, but she knows now that you are speaking to her through me. She is looking out at the hovering swarm of Electrae outside her window."

Crain could almost see that scene—Mara leaning forth, gazing at the firefly swarm, one of whose shining phantoms was Crain himself.

"Tell her," he called tensely, "that she must go to the temple and turn on the rematerializing force in the altar—that that is the only way I can return to life."

Kro's answer came soon. "I have told her, Master. And she is troubled. She says, 'Krayn, I love you, and would give my life to bring you into life again, but I fear that you mean to wreck the great plan that will revive Bara, that you mean to work against my world.'"

"Tell her that Bara, as much as Cholu, is my world!" Crain exclaimed mentally. "That I have a plan that will benefit both worlds, instead of devastating one to save the other."

Again, Kro's answer came quickly. "She says, 'I will do what you ask, Krayn. I go now to the temple to turn on the altar.'"

Emanations of tense excitement throbbed from the Electrae around Crain. Desperate eagerness of shadowy phantoms who sensed a chance to live again.

"The princess and I are hurrying around the dark plaza, Master," Kro reported. "No one has seen us yet."

"We must follow!" Crain cried mentally to the hordes of Electrae.

AND desperately he projected his electrical mental waves to propel him after the robot and Mara. The emanations of the Electrae told him that they, too, were moving with him. And the thoughts of Kro came louder again, proving that they were following the princess and the robot closely.

"We are at the entrance of the temple, Master," came the robot's thought. "The guards have halted us. Mara orders them to stand aside, but their officer has seen the swarms of Electrae who follow us, and he hesitates. He says it is unprecedented for anyone to enter the temple at this hour of night, and that he should consult the regent Ligor.

"Mara threatens the officer," Kro continued swiftly. "She reminds him she is of the blood royal, and haughtily she dismisses him and his guards. The officer gives way to her commands, and marches away with his men.

"Now we enter the temple, Master. There are countless hundreds of Electrae swarming around us. The princess has gone to the metal standard beside the altar. She quickly sets the little wheels that control it. Suddenly, a great shaft of bright red force shoots up from the altar—"

And Crain's bodiless mind, at that moment, *felt* that sudden rush of force from the altar, the rematerializing vibrations. He felt them drawing him toward them, like a powerful magnet.

He sensed himself floating toward the source of that surging force, like a chip drawn into a whirlpool. Then came a terrific, clashing shock of force through the photons of his electric being. He felt wrenching, rasping agony—and could have cried aloud with joy that he could feel that pain. A tremendous force seemed to strain his being. Then there was a bumping fall upon a hard surface, a roaring in his ears, a blaze of bright red light in his eyes—

He was real again! Crain was standing, solid and material, beside the blazing shaft of red force that sprang from the altar in the vast, dark temple.

"A man again!" he choked. "Thank God, I'm out of the Electrae!"

Mara came running toward him, her face deathly white, tears in her dark eyes.

"Krayn!" she cried, then she was sobbing in his arms.

He held her close for a moment, still shaken by the shock of rematerialization.

Around the blazing red shaft, countless hundreds of glowing Electrae were swirling wildly. One by one, they were floating into the red force.

And out of the red force, appearing first as misty phantoms and then as real, solid people, came men. First to appear after Crain was a huge, brawny soldier in helmet and metal tunic, his battered face transfigured with joy.

"Real again!" he cried jubilantly. "I, Skuro, a living man once more after thirty years in that hell!"

"Skuro, remember the promise you all made!" Crain cried. "That you would follow me, and obey my orders, after you were rematerialized."

Skuro wrenched loose a metal post from a nearby railing, and swung it like a great mace, his eyes flaring.

"Lead me anywhere!" he roared. "I'll follow to hell itself!"

OTHER men, by dozens, by scores, were appearing in the crimson shaft of force, staggering out of it, gazing wildly around. There were women, too, from the Electrae. All took up Skuro's cry.

Kro had come clanking forward, and the robot stood silent with lens-eyes calmly fixed upon Crain.

"Kro, without you we'd never have won free!" Crain exclaimed, with heartfelt gratitude.

"What now, Krayn?" Mara was asking tensely. "Ligor still rules Bara, as regent."

"We'll rematerialize enough of the Electrae to overcome him," Crain exclaimed, his dark, lean face eager. "Then we'll flash to Earth—"

"Master, I hear men coming!" Kro rasped suddenly.

The doors of the shadowy temple burst open. Armed guards burst in, with Ligor at their head. His handsome face went white with rage as he saw Crain with Mara.

"See, it is as I feared!" the officer beside him cried. "The princess is releasing some of the Electrae!"

Raging, Ligor drew the gas-gun at his belt. But before he could level it, the giant Skuro flung the metal mace in his hand. It struck Ligor's temple and the young regent went down stunned.

"Forward, men!" Crain yelled to the Electrae-men who had already rematerialized from the brilliant shaft of force.

With a hoarse, crazed shout, the Electrae-men leaped forward upon the astounded guards.

Gas-guns flashed out in the guards' hands, and *chuffed* with deadly quickness. Little clouds of green vapor flicked through Crain's charging men, burning through them as though they were men of paper.

But unstopped by that, Crain's unleashed, unarmed force charged on. They reached the guards before a second volley could be fired. And then it was hand-to-hand, with no room to use the gas-guns, a staggering conflict of guards and Electrae-men, by the door of the dusky temple.

Crain struck like a madman, conscious that he was fighting for both Bara and Earth. The sheer physical joy of being real again, after that horrible interval as an electric phantom, made him laugh fiercely as his fists smashed home on terrified, Martian faces.

Beside Crain, towered the great robot, and Kro's metal fists were dealing death. And the Electrae-men, released from years of shadowy nothingness, were insane in the fury of their attack.

The guards could not stand against that terrific assault. The remainder of them turned and fled from the temple.

Crain turned, panting. More and more of the Electrae-men had emerged from the rematerializing force during the fight. Hundreds of them were now in the temple, beside the frantically rejoicing women who had come through with them.

"We have enough men now to hold the city!" Crain exclaimed. "Turn off the altar force, Mara."

AS THE princess obeyed, as the crimson shaft died, Skuro cried to Crain, "But what of our friends, our families, still in the Electrae? Are they not to be released, too?"

"They shall all be released, every one, when my plans for Bara are achieved," Crain grimly assured. "There would not be enough food for them all on Bara now. But if you follow me and help me win my goal, Bara will be able to support them all, and all will be freed."

"You hear, comrades?" roared Skuro's bull voice. "We fight now for the release of the other Electrae!"

A tremendous shout went up from the hundreds of Electrae-men.

"We follow wherever you lead, Krayn!"

Kro had grasped Ligor, who was rising dazedly from the floor.

"Shall I kill him, Master?" the robot asked.

"Yes, death for Surp's son!" fiercely shouted the Electrae-men.

"No, do not kill him," Crain ordered. "But see that he does not escape."

Mara's slender figure came flying through the milling throug to Crain's side.

"Krayn, what do you plan?" she asked eagerly.

"We must go to Earth—to Cholu," Crain said, swiftly. "We must save Lanu from being killed by Surp, if it is not too late. And we must overthrow Surp, once and for all."

"And then?" Mara asked anxiously. "You will hurl the water of Cholu to Bara, then?"

Crain shook his head firmly. "No, Mara. I will not take one drop of Earth's seas for this world. But I will make Bara green and fertile again, by other means. Will you trust my promise to do that?"

Mara's dark eyes were filmed with doubt.

"I do not see how you can revive Bara without taking Cholu's water," she said. "But I trust you, Krayn."

"Now to the matter-caster in the plaza!" Crain called to his eager Electrae-men.

They emerged with a shout from the temple. Dawn was breaking over Ingomar, the sky paling and flushing pink, washing the rosy towers with deepened color.

The guards who had been posted around the colossal matter-caster in the plaza, had fled. Tempestuous excitement was stirring through the city, but Crain paid it no heed.

## CHAPTER XX

### *Two Brothers*

GRIMLY Crain ordered some hundreds of his men, partly armed now with gas-guns of the fallen guards, onto the matter-caster's tremendous crystal disk. Then with the remaining Electrae-men, Mara accompanying him and Kro following with the captured Ligor, Crain led the way toward the massive switch-board and voice-cone that towered in the plaza near the disk.

"You are to remain on guard at this switchboard," Crain told his detachment of Electrae-men. Swiftly he explained to them its operation. "We others go now to Earth."

"You have forgotten one thing, Choluan," Ligor sneered. "My father's men will be in charge of the matter-caster on Cholu. Do you think they will turn it on at your request?"

"That's why you are with us, Ligor," Crain said tightly. "You are going to call the Baran base on Earth, and ask that the matter-caster be turned on to receive us."

Ligor laughed scornfully. "I suppose that you mean to kill me if I refuse? Then kill me, half-breed, for I will never do it."

"No, we won't kill you," Crain said, and his voice and eyes were deadly. "We'll just turn you into an Electra, if you refuse."

"Aye!" fiercely shouted the Electrae-men. "Make of Surp's son what his father's trickery made of us!"

Ligor was not a coward. But he blanched at the threat of that doom that a Baran feared above all else. He had a trapped look.

"Well?" snapped Crain.

"I'll—do it," Surp's son said thickly. "Turn on the voice-cone."

The great transformers hummed with power, and Ligor called up into the cone.

"Ligor calling! I am coming through to Cholu. Have your machine ready to receive me."

Minutes later, the astonished answer came back. "But you were to stay on Bara as regent, sir—"

"I'm coming through!" Ligor hectored. "Do as I order!"

When the reply finally came, it was obsequious. "Matter-caster now on to receive, sir."

Crain jumped back up onto the huge crystal disk, where Skuro and his host of impatient Electrae-men waited. At Crain's command, Kro followed, gripping Ligor's arm.

"I'm going with you!" Mara declared.

"You mustn't, Mara!" Crain exclaimed. "There'll be fighting on Earth—you won't be safe!"

"Does a princess of Bara think only of safety?" she demanded, dark eyes flashing. "I go!"

Crain raised his hand in signal to the Electrae-men stationed at the switchboard. He saw them fling the switches over as he had instructed them.

The transformers droned deafeningly, the great disk under them shimmered with glowing blue light, as the first switches were thrown. Mara pressed close to Crain, trembling a little, but her dark head was held steadily erect.

The last switch clashed shut— and a terrific upburst of force hurled Crain and his companions on the disk into nothingness. He experienced, as before, only the sensation of racing, rocketing, speeding, back through the black gulf of space toward Earth . . .

THE crashing shock of consciousness smote Philip Crain. He opened his eyes to a blaze of hot afternoon sunlight. The sunlight of Earth!

He and his companions, his host of Electrae-men, stood upon the vast crystal disk of a matter-caster identical with that which had hurled them across the void. Nearby, at the switchboard of the great machine, a company of Baran soldiers gaped at this angry-eyed throng that had suddenly appeared where they had expected only Ligor.

In that first moment of stricken silence, Crain's swift glance showed him that the Canadian forests had been destroyed for an area of a mile around. Upon this raw new plain rose great piles of Martian equipment, and newly-erected metal huts and barracks.

"Gods of Bara, who are these?" the officer at the switchboard was shouting.

"They're enemies of Surp!" Ligor yelled frenziedly, squirming from Kro's grip. "They made me call you! Attack them!"

The officer uttered a loud cry.

"Guards!" he called toward the barracks.

But already Philip Crain was shouting orders to his own men. The Electrae-men had sprung off the disk, and were rushing to meet the Baran soldiers running from the barracks.

A crazy battle spread like flame around the huge matter-caster. Gas-guns chuffed, deadly vapor clouds swirled through the melee, hoarse voices shouted.

Crain had used his gas-gun to blow deadly clouds through the oncoming soldiers from the barracks, until the weapon was exhausted. He sprang into the fight, using the silvery tube as a bar, striking right and left. Enemy could hardly be told from friend in that mad conflict.

Martians, at death-grips here in the sunlight of Earth! And all of them, Crain noticed even in the wild whirl of the fight, moved heavily, with difficulty, weighed down by the greater gravitation of the larger planet and breathing noisily in its thicker atmosphere.

"Fight!" the giant Skuro was shouting in a bull roar to his companions. "Remember, we fight for the freedom of the Electrae!"

"For the Electrae!" went up the

fierce battle-cry of the men who themselves had been electric phantoms only a few hours before.

The Martian base had been guarded by only a thousand men. And though this was a greater number than Crain's force, what the Electrae-men lacked in numbers they made up in sheer ferocity.

The soldiers crumpled under the tigerish attack of the Electrae-men. And in the forefront of the attack, striding like a metal colossus, smashing right and left, Kro the robot was killing.

The soldiers began to throw up their hands in surrender. A few surviving officers had already fled to a half-dozen Worms parked nearby, and were racing away southward. Except for a few scattered combats, the fight was over.

Anxiously Crain ran back to where Mara stood near the matter-caster.

"YOU'RE all right?" he asked anxiously.

Her face was pale and drawn. "Yes—but I feel heavy, hardly able to stand," she gasped.

"It's the greater gravitation—you'll soon become used to it," he assured her.

Crain whirled around as from nearby came a sharp, excited cry.

"Philip! Philip Crain!"

From one of the metal huts, several men were running. He recognized John Martin's massive face, and the red head of Scott Fulton. Then he saw Kay.

And behind them stumbled another man, in soldier's metal under a crimson cloak. Lanu! Crain felt a strange throb of gladness that he had been in time to save his half-brother.

John Martin's face was ghastly as he reached Crain, his eyes feverish as he poured out information.

"There's a terrible invasion of Earth going on, Philip! The main Martian forces, under that noble Surp, are driving headlong toward the sea. Thousands of them, hundreds of those Worms, are pushing down through New York State now! We've got the radio reports—"

Kay was crying. Her face was no longer the stiff, hypnotized mask it had been when Crain last saw it.

"And I did it, Philip!" she sobbed. "I called Father to open the matter-caster here, and the advance guard of the Martians came through with me. But I didn't know what I was doing!"

"Of course she didn't!" exclaimed Scott Fulton, his arm around the sobbing girl. "Her mind was a blank, when she came through with those Martians. But a few days ago, she became normal."

Crain suddenly understood. When the Brain had been killed, far out there on Mars, its remorseless hypnotic grip upon Kay had been abruptly relaxed.

Lanu came stumbling up, moving heavily, his face white as death.

"Krayn! My brother!" he cried. "You were right about Surp. He is a traitor! Once our expedition reached this world, Surp had his men secretly seize me and prison me in that hut with these Choluans. One of your men just released us. Surp gave out that I was ill, that I had deputed command of the host to him. But he left orders that I was to be killed when the main Baran host was far enough away that it would not hear about it."

"What are you going to do, Philip?" John Martin demanded. "That Martian drive toward the sea must be stopped, and all Earth's forces can't stop it. The weapons of Earth's defenders are useless, the radio said."

"I've got a plan," Crain told them swiftly. "I've got to get to the main Baran army, confront Surp and—"

"Krayn, *look out!*" Mara screamed.

Crain whirled. Ligor, forgotten during the wild conflict, stood not ten yards away. He held a gas-gun in his hand, levelled at Crain. Kro was racing toward Ligor, but was still yards from him.

"At least I'll send you out of life, impostor!" Ligor snarled, and pulled the trigger.

The little cloud of deadly vapor shot toward Crain. But Lanu was plunging headlong, thrusting Crain out of the path of the deadly disintegrating gas.

THE cloud touched Lanu's side. The Baran king fell heavily. Crain heard Mara scream, as he regained his balance. He saw Kro reach Ligor at that same moment, saw the robot's metal fist crash down upon Ligor's skull—and shatter it.

Crain sprang to Lanu. There was a great, gaping opening in the king's side. His crimson cloak and metal tunic and the tissues of his body were eaten away there where the deadly vapor had touched him.

"Lanu!" Crain cried hoarsely.

Lanu's face—that face so weirdly identical with Crain's own—was waxy, but his large, dark eyes stared up into his half-brother's face.

"I could not let that upstart kill you, brother," Lanu whispered. "I owed you that, for having disbelieved you and sent you into the Electrae."

Crain's voice was choking. "Lanu, you mustn't die! We're going to overthrow Surp, and I have a plan that will revive Bara without harming Cholu. You'll sit upon the throne of a new, green, populous Bara."

"No," Lanu whispered weakly. "I feel the life running out of me." His fingers fumbled feebly at the collar of his cloak. "You must wear the royal crimson now, Krayn. For I bequeath the kingship to you. And I bequeath to you my vengeance on Surp."

The dying man's eyes seemed to stare around in an effort to discover another face.

"Mara," he murmured.

The princess knelt beside him, her eyes tear-bright.

"Yes, Lanu. Yes?"

His eyes clung to her face, strangely wistful. "Mara — " he murmured again. Then his body twitched, his face froze.

"Dead!" said John Martin.

Mara was weeping. Crain rose to his feet, his mind a whirl of emotions. He helped the others pick up Lanu's limp body and carry it toward the metal hut that had been their prison.

As they laid Lanu's body down, a little radio set in the hut—one that Crain recognized as part of their original camping equipment—was vibrating to an announcer's hoarse voice.

"Newark giving further bulletins on the invasion. The main force of the mysterious invaders is now heading south. They have just left Albany, and are heading down the Hudson River valley toward New York. All resistance to them has proved futile, for within a hundred mile radius of them, no powder will explode, no gasoline motor will operate, no airplane or tank or automobile or firearm can be used.

"There has been no great loss of life so far, since at Albany, as at Kingston and Syracuse and Utica, the population has fled out of the path of the invader's advance. But we beg all in the country to believe us when we say that this invasion is real! It is not another hoax, as most of the country seems to believe! We implore the population of the Hudson River valley and of New York to believe, and to flee at once!"

"You hear?" John Martin cried. "Most of the country still doesn't believe in the invasion, thinks it another radio hoax. And when that attack reaches New York city—all those millions—"

"Surp and his host must not reach New York!" Crain exclaimed. "They're driving for the sea, to set up the matter-casters that will hurl water to Bara. But I can stop them, if I can reach them in time."

HE stooped, took the royal crimson cloak from Lanu's dead form and flung it around his own shoulders. Then he leaped toward the door of the metal hut.

"I'm going after them, in a Worm. There's no time to lose. Come on, Kro."

The great robot sprang to obey. But Mara stumbled out into the sunlight after them.

"I go too, Krayn!" she cried.

He started to deny her, then saw by her set white face and flashing eyes that it would be useless.

"Come on, then, Mara," he said. "You will be of help when I face Surp's army!"

The robot clanked rapidly toward one of the remaining Worms. There

were only two—the others had been used by the escaping officers of Surp for flight.

"Skuro," Crain called to the giant Electrae-man, "you and ten of your men go with me in the Worm. The rest of you remain here and guard the matter-casters and these Choluans."

Mara climbed into the Worm with Crain. Skuro and ten of his Electrae-men followed. They hastily took their places at the breeches of the big gas-guns with which their war-vehicle was equipped.

"Start, Kro!" Philip Crain ordered the robot. "Follow the trail of Surp's army."

The Worm shot forward. It slid like a racing metal snake across the raw plain that had been gouged from the forest.

From this devastated area, a broad swathe led southeastward through the towering Quebec forest, a highway hundreds of feet wide that had been slashed from the woods by the passing of Surp's host. Trees and brush had been cleared by gas-guns, and the earth had been tramped down by hundreds of passing Worms—a trail that no one could miss.

Upon this wide, raw highway the single Worm rushed through the warm late afternoon sunlight. Racing at full speed to overtake Surp and his host, hundreds of miles ahead. Speeding on through the sunset and the dusk, with a great robot at its controls and a half score of newly-materialized Electrae for crew, bearing Philip Crain and the Baran princess on.

## CHAPTER XXI

### *The Ambush*

UNLIGHTED structures stood out in the brilliant midnight moonlight, a mass of black.

"That's Utica," Philip Crain declared tautly, peering through the window in the nose of the Worm. "Surp's army is still far ahead of us. We must go faster, Kro!"

"We can go no faster, Master," replied the robot in his imperturbable metallic voice.

Mara's hand closed on Crain's taut fingers. "We shall overtake them by morning, Krayn, surely."

"By morning Surp's army will be crashing into New York," he said rawly. "That mustn't happen!"

Crain's mind was feverish with mingled apprehension and hope. All during the night, as the Worm had raced at top speed down through the Canadian countryside and into New York state, his fears had tormented him.

For, they had had evidence of how the Martian drive was crashing through all resistance. Every city and village they had passed through had been dark and deserted. From the Canadian hills, from Kingston, where they had crossed the St. Lawrence, from all the small cities and countryside of upper New York, the population had fled east and west from the Martians.

Crain had learned, from a radio loudspeaker still shouting in deserted Kingston, that Surp's army was driving straight down the Hudson River valley from Albany. The newspapers and radio stations were still trying to convince the country that this incredible invasion was real, and not another radio scare. And the War Department was still frantically trying to find a way to overcome the mysterious influence that made all Earthly weapons useless within a hundred miles of the invaders' army.

"It's the weapon that the Brain devised for Surp, the thing called an anti-catalyzer, that's causing that!" Crain had exclaimed. "I understand, now. The thing emits a field of force that inhibits and slows down all chemical activity within a hundred miles. That's why explosives in its field only burn slowly instead of exploding, and it's why gasoline motors won't work."

"But why doesn't the inhibiting field prevent the gas-guns of the Barans from working?" Mara had wondered.

"The gas-guns utilize a physical, not a chemical principle," Crain had reminded her. "The vapor from them

doesn't combine chemically with substances, but simply dissolves them."

Now, as the lightless structures of Utica loomed ahead, Crain was feeling a rising hopelessness.

"If they get to New York City," he muttered, "all the millions there, still believing the invasion a hoax—"

Kro was driving the Worm through the outskirts of darkened Utica, into the business section. Weirdly dark and deserted in the moonlight lay the once bustling city. A few sections of it had been destroyed by the gas-guns of Surp's host.

"Kro, look out!" Crain yelled suddenly.

Two Worms had darted suddenly from a dark side street, their gas-guns jetting vapor at Crain's vehicle.

The robot's super-sensitive mind had perceived the peril before Crain had. Kro whirled their Worm aside like lightning, in time to avoid the deadly little clouds of vapor.

"It's an ambush!" Crain cried. "Surp set this trap for us! He must know we're trying to overtake him!"

WITH yells Skuro and the other Electrae-men reached for the breeches of their big gas-guns.

"We must fight it out!" Crain shouted. "They'll destroy us easily if we try to get away."

Then began a weird, unearthly battle in that moonlit, deserted Utica street. Battle of one Martian machine against the two others that sought to destroy it.

Again the attacking Worms launched gas charges at Crain's machine. Again, it leaped clear of them by grace of Kro's speed at the controls. The robot, with his super-swift sensory reactions, was fighting a battle no man could have fought.

Skuro and his men launched deadly green clouds at their antagonists, and missed. The vapors struck a nearby office building, whiffed away its first floor. Upper floors crashed down with a roar of falling masonry.

Like battling serpents the three Worms poised, the one facing the two. In the moonlight, the machines looked like great struggling snakes.

"They separate, Krayn!" Mara cried as the two enemy machines began to glide apart.

"They mean to catch us from both sides," Crain said tautly.

"Be ready," rasped the robot's metal voice. "Aim your guns at the right-hand Worm."

And Kro suddenly darted their machine at the left-hand enemy. Gas-clouds puffed from it. But Kro's strike had only been a feint. With incredible swiftness, the robot whirled the Worm around toward the other enemy. Skuro's men fired their guns.

The clouds of green vapor flew through the moonlight and hit the right-hand enemy squarely. The whole middle of that machine was instantly gone, whiffed away by the gas.

"That's one of them gone!" Crain cried.

"Krayn, we're hit!" Mara screamed.

The remaining enemy, as Kro finished the unexpected maneuver, had fired again. The whole tail of Crain's Worm was suddenly gone. The drone of its power plant began to die, as vital connections were severed.

"Got us!" Crain cried hoarsely. "Kro—"

But the robot, understanding the situation, was already acting. Before their power had died completely, before the remaining enemy could get in another volley, Kro shot their crippled Worm toward the enemy machine.

They struck the enemy Worm with a crash of metal, pinned it against a building. It struggled vainly to free itself, unable to use the big gas-guns at these close quarters.

"Out, and take them!" Crain shouted.

Drawing his belt gas-gun, he leaped out of their crippled machine, followed by Kro and the yelling Electrae men.

Kro's great metal hands tore open the door of the pinned enemy Worm, with a scream of rending hinges. And then they were pouring into the enemy machine.

That wild hand-to-hand fight inside the enemy Worm was over in moments. The Barans were no match for

Crain and his blood-mad Electraemen, supported by the robot.

Crain stood gasping, wiping his brow, as the last enemy fell beneath Kro's smashing metal fists.

"We'll go on in this Worm," he panted. "Kro, throw out those dead."

MARA came flying in, to Crain's side.

"Surp must have learned that we follow him!" she cried. "How could he learn?"

"The officers who escaped the fight in the base camp, Master," rasped Kro. "They fled southward after Surp, and could have notified him that we are now on Cholu."

"That's it," Crain exclaimed. "And Surp will have other ambushes waiting to stop us. And we'll hardly be lucky enough to escape another such trap."

Black despair almost claimed Crain. Near exhaustion, both physical and nervous, crushed beneath superhuman responsibility, he was almost ready to admit defeat. He forced himself to fight down that feeling.

"We dare not follow Surp's trail directly, now, or we'll be destroyed by another ambush," he declared. "We must leave the path of his army, swing southward and then eastward, and approach the Baran army from ahead. Surp won't be expecting that."

"But that means that we will be passing through enemy country — through these Choluan people who will believe us part of the invaders!" Mara objected. "They'll attack us!"

"We'll have to chance that," Crain said. "It's a better chance than running into another ambush. Come on!"

In a few moments their newly captured Worm, with Kro at its controls, was racing through the deserted streets of Utica. But now instead of following the trail of the Baran host eastward toward Albany, they headed south.

In the moonlight, they rushed now through an untouched countryside. It was as deserted as the area from which they had come. Not until they were east of Binghamton, a few hours before dawn, did they come on people. In a small village, excited crowds were listening in the streets to the radios' announcements.

With shrieks of terror, the villagers fled as the great Martian Worm bore down on them. Shots rattled off the Worm as it sped on through the hamlet. Skuro and his men leaped to the gas-guns to fire back, but Crain's command halted them.

"No, we do not fire at Earthmen! They are only defending themselves. They cannot know our mission, and they think us enemies."

"But they may destroy us!" Skuro cried.

"Nevertheless, we don't fire at them," Crain ordered. "In an emergency, fire—but use the purple paralysis beam!" Doubtfully, his followers acceded to the order.

Crain knew that from the village word would be flashing ahead of a Martian Worm raiding southward. He had Kro keep their machine off main roads, circling around villages.

Dawn was paling the eastern sky as they swung down through the hills toward Scranton. The city's streets were deserted, and a mob of cars and people was fleeing southward.

"They've been warned of our coming," Crain muttered. "To the left, Kro. We must swing eastward across the river here, toward New York."

The Worm rushed through empty streets toward a bridge across the Lackawanna River. Crain's heart sank suddenly. For across the head of that bridge steel girders had been piled in a high, heavy barricade that even the Worm could not crash through or climb over. Behind it were khaki-clad soldiers with mounted machine-guns. They were already spraying the Worm with bullets.

From an airplane, above, a shell burst near them.

"Can we try another bridge?" Mara cried.

"They'll all be barricaded," Crain said hoarsely. "And we've got to get across the river, quickly."

"There is but one thing to do, then," Skuro declared. "Blast away the barricade and the men, with our gas-guns!"

## CHAPTER XXII

### *The Passing of Kro*

ONCE more Crain faced a fearful dilemma. He *couldn't* order those soldiers, men of Earth who were only doing their duty, to be blasted with their barricade out of the way. Yet if he didn't, the Worm would soon be destroyed by the field-gun that was now getting the range. Its shells were falling closer each moment.

As he stood irresolute in that moment of dire decision, Kro acted. The huge robot tore open the door of the Worm and plunged outside, a sleep-gas bomb in one hand.

"I can clear that barricade, Master!" the robot's metallic voice cried.

"Kro, wait!" Crain cried, but the robot was already running toward the bridge. The paralysis ray shot out.

Kro's mighty metal body gleamed bright in the sunrise as he headed for the high barricade. For a moment, the soldiers behind the pile of girders stopped firing, petrified at sight of the metal monster charging toward them.

Then they turned their rifles and machine-guns on the robot. Bullets rattled off Kro's massive metal torso like hail. Shrapnel from bursting shells showered him. The bomb was shot out of his hand.

And Kro kept on going! Kept on, until he was at the pile of girders. The metal giant, with his incredible strength, lifted a great girder from the pile and threw it aside. He threw another aside—rapidly clearing away the tangle of steel.

Bullets from the soldiers behind the barrier and the now falling planes spanged off every part of his metal body. But working with mad strength, Kro had already cleared away a part of the barricade. Crain saw the robot was staggering now, seemingly badly hit.

"Kro, come back!" Crain yelled. "We can get through now!"

Guided by Crain's voice, Kro turned and staggered back to the door of the Worm. He pitched inside it, fell to the floor of the vehicle with a clanking crash of metal.

The door was slammed shut. Crain had already leaped to the controls, and he flung on the power. The Worm shot toward the barricade. Bullets and shrapnel hailed down on it. Crain lifted the Worm's head in cobra fashion, and the vehicle slid like a snake over the part of the barrier that Kro had partly cleared, brushing past the firing soldiers, speeding on across the bridge.

Once the bridge was well behind them, Crain sent the Worm flying at top speed down the road.

"Krayn, Kro is hurt!" Mara cried.

Crain abruptly stopped the Worm on the empty road and sprang back to the robot's side. Kro still lay upon the floor, with Mara bending over him.

The robot was horribly mutilated. Both its lens eyes had been smashed out by bullets. Fragments of shrapnel had torn between the joints of its metal body.

Crain knew that the robot's electrical life was passing. The complex inner mechanism of Kro's brain and nervous system had been damaged beyond repair.

"Kro!" he cried hoarsely. He saw the robot's huge metal limbs stir weakly, heard a fading whisper.

"Yes—Master—"

And with that dying whisper, Kro's strange life was gone. He lay, an inert mass of metal.

"He's dead," Mara said, crying. "No one but Dandor could ever have repaired his mechanism."

CRAIN felt something hot and stinging in his own eyes. The faithful metal servant, trying to answer him with his last dying strength—

"I never thought," Crain said chokedly, "that anyone could shed tears for a robot."

He stumbled back to the controls and sent the Worm flying forward again, over the open fields now.

"Look—above us!" cried Skuro, pointing back and upward through one of the little windows.

Crain glanced back and saw four more airplanes, overtaking them and dipping toward them with a crescendo roar.

"Bombers!" he cried.

But as he shouted, the roar of the airplane motors suddenly died. Yet even with motors dead, the army bombers dipped desperately toward them to loose their bombs.

Huge missiles crashed down all around the fleeing Worm — great bombs laden with the most deadly explosives known to Earthly science. And the bombs did not explode. They simply burst open, and the explosives inside them slowly burned.

"We're inside the radius of Surp's anti-catalytic field now," Crain exclaimed. "Thank God!"

With motors dead, the bombers were drifting toward a landing. Crain drove desperately on across the flattening New Jersey countryside.

As they entered the close-clustered New Jersey suburban cities, they encountered roads and streets along which streamed crowds of terror-stricken refugees, on foot, on bicycles or horses, but not in automobiles. Cars would not operate inside the field of Surp's anti-catalyzer.

The refugee throngs scrambled aside in wild panic as the Worm rushed through them. Rifles of marching troops were aimed at them, but would not fire.

Crain finally swung the Worm up a ramp onto the Pulaski Skyway. It, too, was jammed with outward-fleeing refugees who shrank back terrifiedly as the Martian machine came on.

"See, Krayn—Surp's armies come!" Mara cried, pointing through a window.

Far northward, a little to the east, huge plumes of smoke and dust were rising into the morning sunlight. Plumes of destruction, marking the march of the Baran armies southward onto Manhattan.

"They'll be in New York in an hour!" Crain exclaimed.

The Worm flew along the Skyway like a shooting python, through crowds of screaming refugees, crashing past stalled automobiles. It seemed an eternity before Crain saw the entrance of the Holland Tunnel ahead.

The tunnel was disgorging a constant stream of refugees on foot. But no cars were emerging, and hardly any were in the tube, since the anti-catalytic field has stalled all cars in the metropolis before the populace had finally credited the reality of the incredible invasion, and had started to flee.

Crain drove their Worm straight through the white-tiled tube. Screaming men and women who expected to be annihilated as the Worm rushed upon them, flattened themselves on either side.

Crain's eyes were flaming when finally he drove the Worm out onto Eighth Avenue.

NEW YORK was a maelstrom of insane panic. Men and women and children were fleeing toward the bridges and the tubes. Radios were bellowing warning like the trumpets of doom.

"Leave the city! Leave the city! The invaders are here!"

Staring in wonder at the great metropolis and its panic-mad throngs, Mara pointed northward.

"Surp's armies come!"

Crain saw clouds of green vapor flashing in the north, and smoke and dust rising ominously.

He drove the Worm recklessly toward that pall of smoke and destruction that hung north of Manhattan. By the time they reached Morningside Heights, they met no more refugees. But now they met troops — thousands of khaki-clad regulars and militia, retreating in disorder, clubbing their useless rifles.

Earth's defenders, retreating before this oncoming enemy against whom their weapons were futile! The Worm brushed through the troops, northward along upper Broadway, toward the broad expanse of Van Cortlandt Park.

"The hosts of Bara!" cried the Princess Mara.

In a great line across the city, the Martian forces were advancing. Hun-

dreds of huge Worms, gliding steadily forward, using their gas-guns to blow away all the barricades and attempted resistances. And among them moved two Worms that had slung between them the huge hemispherical anticatalyzer.

Philip Crain drove the Worm right into the park, into the front of the Martian advance. And as he stopped, the hundreds of Worms all across the line of battle stopped also, as though amazed at sight of a comrade coming from ahead.

They converged upon Crain's motionless machine. Their gas-guns turned ominously toward it—

"Surp has ordered them to destroy us!" Mara cried. "He knows it is you, Krayn."

But Crain had already torn open the door of the Worm. He was leaping out onto the grass, Mara followed him.

As Crain ran toward the Martian Worms, his royal crimson cloak flashed brilliantly in the sun. And out from the halted Worms poured excited Barans.

"King Lanu!" they cried amazedly.

## CHAPTER XXIII

### *Crain's Plan*

JUST as if sudden orders had been given them, the advance of the Martian host had stopped completely. Baran officers and men were pouring forth from the Worms, gazing amazedly at Crain and Mara.

And among them was Surp. The massive noble's hard face went livid with rage as he saw Crain. Hate and fear flared in Surp's eyes.

"This is not King Lanu!" he cried to the astonished Barans. "This is only a half-breed brother of the king."

Philip Crain raised his voice.

"It is true, Barans, that I am not Lanu, but his brother. Lanu himself is dead."

"Dead?" shouted hundreds of Barans.

"Yes, dead!" Crain exclaimed. "Surp left Lanu in the base camp in the north, not ill as you supposed, but a prisoner. And Surp left orders for Lanu to be killed—for Surp himself aspires to the throne. His own son, Ligor, killed the king."

Cries of fury went up at Crain's charge. Quickly, Surp raised his voice in a harsh shout of denial.

"It is not true!" the noble bellowed. "If the king is dead, this mongrel brother of his killed him. This half-breed, half Choluan and half Baran, is the one who has sought to take Lanu's throne, not I."

"It is true!" cried Princess Mara's silver voice. "I saw Ligor kill Lanu —before Ligor himself was killed."

"My son dead?" cried Surp. For a moment, his face was ghastly.

"Lanu bequeathed the kingship to his brother Krayn, who stands beside me," Mara was crying to the Baran host. "Nobles and soldiers of Bara, he is your rightful king."

Surp stiffened, and he swung to shout to the bewildered army.

"Will you believe the princess' lie?" he roared. "She is in love with this mongrel, and she probably helped him kill Lanu so that he could take the throne. Men of Bara, will you take this lying half-breed for your king? Or will you have me for king —I, who am all Baran, who owe no loyalty to Cholu but think only of reviving Bara and freeing the Electrae."

The Barans seemed bewildered by the choice forced upon them. They stared silently at Surp and at Crain.

Philip Crain, stung by Surp's lie, cried to them with all his strength.

"Barans, do not believe Surp! He means never to release the Electrae! For among the Electrae are hosts of Surp's enemies, whom he thrust among the phantoms by using trickery in the Drawing of the Lots."

A roar of inarticulate rage flamed instantly from the whole Baran host. Every man among them had for his dream the freeing of the Electrae. It was for that they had come upon this expedition, for that that they had driven toward Earth's seas.

"Is this true, Surp?" cried hundreds

of infuriated voices.

"It is true!" Mara declared. "Ligor himself boasted to me how his father had for years manipulated the Drawing of the Lots, and bragged that when Surp was on the throne and Bara revived, the Electrae would never be freed."

SURP tried to deny the deadly charge, and could not. His face was terrible, as he saw the structure of crime and ambition which he had built for so long tumbling about his ears. His tortured eyes, swinging almost dazedly, rested on Philip Crain. Hideous hatred blazed in them.

"At least, mongrel—" he repeated his son's words in a choking voice, "I will take you with me!"

He was drawing the gas-gun at his belt. But Crain sprang before the noble could raise the weapon. That desperate leap knocked the gas-gun from Surp's hand. And then he and the noble were locked in a death struggle.

Crain's anger-filmed eyes glimpsed Mara and Skuro staring stonily, and dimly he heard the cry of the Baran soldiers. All seemed frozen motionless by the spectacle of this swift, deadly combat.

Exhausted as he was, Crain felt a compelling surge of strength. It was as though memory of Surp's victims—of Dandor, and Lanu, and Kro, and all the others—nerved him. He had his hands around Surp's throat and tightened them. He seemed not to feel the smashing blows of the massive Surp. He felt nothing, knew nothing, but the red flare of rage and hate that called for satisfaction.

Then Crain dimly realized that he was being pulled to his feet, by Skuro and Mara.

"Surp!" he croaked.

"He is dead," the princess whispered, and shuddered.

And Crain saw now that Surp lay motionless, his eyes protruding, his face purple in death.

Mara sobbed against Philip Crain as he stood there, gasping and staggering.

There was a long, dead silence as the Baran army stared. Then an officer spoke to Crain.

"You, who were Lanu's brother, are our rightful king, even though you are only half of Baran blood," the officer declared. "We shall hail you king, if you will promise not to let your Choluan blood affect you—if you will promise to lead on toward the sea to get the water that Bara needs."

"No," declared Crain pantingly, but squarely meeting the questioning eyes of the Baran soldiery. "I will not lead you further. This invasion of Cholu must cease! We shall not strip away Cholu's seas and make it a desert world so that Bara may live."

The faces of the Baran officers and soldiers before him became hard and hostile when they heard.

"We cannot stop now!" exclaimed the officer who was their spokesman. "We hate this invasion, this destruction, as much as you do. We hate, as you do, to make Cholu a desert. But Bara comes first! We must get water for Bara."

"But we can get water for Bara here," Philip Crain cried earnestly, "without taking one drop of Cholu's water!"

"How?" asked a hundred skeptical, incredulous voices.

"We can take the ice of Cholu for Bara!" cried Crain.

His voice throbbed with desperate eagerness, the eagerness that had filled him ever since his great inspiration had come to him. He explained his plan to the Barans.

"UPON the polar regions of Cholu lie trillions of tons of frozen water. It covers the great Antarctic Continent thousands of feet thick. It lies as thick upon the vast island of Greenland, and all the north polar regions.

"This ice is harmful to Cholu. It keeps almost a third of this world permanently refrigerated, too cold for human habitation. And it breeds great, cold storms that scourge this world, makes the winters bitter, hampers the lives of everyone on Cholu.

"And this colossal mass of ice, which Cholu would be far better

without, embodies enough water to fill the long-dead seas of Bara! Bara is a much smaller world than this one, and its seas are not large. The ice of Cholu, hurled across space by matter-casters to Bara, will melt into seas that will make Bara a green, fertile, happy world again.

"Thus both worlds will benefit equally. Bara, by receiving the water that will revivify it and make it possible to release the tragic hordes of the Electrae. And Cholu, this Earth, will benefit as much by removal of the huge ice-caps which will make Earth warmer and give it whole new lands for human habitation in its north and south polar regions."

Philip Crain's eyes encompassed the whole silent throng before him.

"Is such a plan not better, men of Bara," he cried, "than to loot the water of Cholu and leave it a desert, an embittered world?"

The faces of the Barans flamed with eagerness.

"Yes, your plan is far better!" cried the officer facing him, eyes flashing. "We never wanted to harm this world We were only striving desperately to save our own."

And a shout of joyful approval went up from all the Baran host.

Mara raised a tear-wet, beaming face to Philip Crain.

"You have succeeded!" she cried. "You have done what I deemed impossible—have avoided harming either of the two worlds, and found a way to benefit both."

Crain felt an enormous reaction that left him weak and trembling. He held the Baran princess close.

"I had to find such a way, Mara," he said unsteadily. "Blood of both worlds is in my veins. I couldn't be disloyal to either of them."

A tremendous, jubilant shout from the Baran soldiers beat upon his ears.

"Hail Krayn, King of Bara!" they were shouting wildly.

Crain's eyes misted. And strangely, in that moment, his thoughts flashed far across the years, to a giant man long dead, who had once stared blindly and in bafflement at the stars.

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"Father, can you hear?" he whispered over Mara's dark head. "Can you?"

## CHAPTER XXIV

### *Epilogue*

NIGHT lay over the raw clearing that had been blasted out of the Canadian forest. A thousand twinkling stars looked down upon the strange scene that was taking place there.

The great matter-caster disk was shimmering with blue radiance. During the last days, it had been hurling the Baran forces, in detachments, back to their own world, back to the red spark that glistened brightly in the star-flecked eastern sky.

Philip Crain, tall and alien-looking in his royal Baran costume of crimson silk and metal, stood near the blazing disk. Upon the shimmering disk waited Skuro and a hundred Baran soldiers. All around the disk, watching with fascinated eyes were American and Canadian soldiers and officials.

Crain was speaking to one of those officials, the President of the United States. Close beside Crain was the Princess Mara; and John Martin, Kay and Scott Fulton were near.

"This is the last Baran detachment," Philip Crain was saying.

The President nodded earnestly. "It all seems like a dream, what has happened," he said. "First that terrific invasion—then the sudden armistice, the great plan you advanced. No wonder the world couldn't believe it, at first."

Crain nodded. It had been an exciting period, these weeks since he had halted the Martian armies at the very edge of New York.

Earth's officials had at first been incredulous, when Crain had informed them that the invasion had stopped and that the Martian forces desired an armistice. The incredulity of Earth's governments had been even greater, when Crain had proposed his great idea of transferring the vast ice-packs of earth as water to Mars.

There had been hasty, excited conferences between Crain and representatives of all Earth governments. And when they had found that Crain really could do the thing he proposed, all Earth had agreed to the proposals with unbounded joy and relief.

The matter-casters which the Martians had brought to Earth were to be left here. Earthmen had been trained in their use, and already the machines had been set up on the huge ice-caps of Greenland and the north polar lands, and upon Antarctica. Upon the morrow, they would start hurling the ice to Mars, there to be melted by the clear sun of Bara into new seas for that world.

The damage which the Martians had done in their drive toward the sea would be more than compensated by the removal of the ice from Earth, the warming of its climate and freeing of its ice-locked polar lands, and by the new scientific devices which were now opened to Earth's use. The fortunate fact that few lives had been taken by the Martian drive made the negotiations easier.

"Earth looks forward to a future of friendship with Mars," the President was telling Philip Crain. "These matter-casters will make trade and travel between the two worlds easy. A great widening of human horizons!"

John Martin, his face struck with strange wonder, spoke now to Crain.

"To think, Philip, that all this came about from that fake radio broadcast that you heard with us that night!"

Kay had not spoken, steadfastly watching Crain. Now she broke her silence.

"And you're going back to Mars, Philip?"

CRAIN nodded, his eyes steady on hers.

"I must, Kay. I am king of Bara now—and there is much to do. The water that will come streaming from Earth's ice must be directed into the proper sea bottoms. The ruined cities must be rebuilt, and the Electrae released as soon as possible." He smiled down at her. "But I'll not forget

Earth! My duty calls me to my father's world, but I'll be coming back for visits whenever I can."

"*We* will be coming back, Krayn," whispered Mara.

The Baran princess' dark eyes were shining, her slim white hand clinging to Crain's arm.

Kay smiled, though there was a wistful shadow in her eyes.

"I knew, back there on Bara, that you loved her, Philip," said the Earth girl.

"Knew it from your face, that night in the palace when you came back from her. And I'm glad it turned out that way."

"And so am I glad, Crain!" Scott Fulton grinned, tucking Kay's arm inside his own. "With you a hundred or so million miles away, maybe I can make Kay listen to reason."

There was a call from the men at the switchboard of the great matter-caster —Earthmen, who from now on would operate the big machine.

"All ready to go!"

"Good-by, all of you!" Crain choked.

He turned from them unsteadily. And then tall and commanding in his brilliant royal cloak, he was moving with Mara toward the shimmering disk.

Skuro and the other Barans waiting on the disk shouted welcome. And the fascinated Earth people watching, saw Crain standing among them, Mara's proud, slim figure by his side, as he waved farewell.

The switches were flung. The watchers saw a dazzling blast of force burst upward from the disk transforming those upon it into shining clouds that hurtled up and outward at velocity inconceivable. Outward toward the starry sky, toward the red spark eastward, the matter-caster awaiting them on Bara.

"He's gone," Kay whispered, and suddenly she was weeping.

Scott Fulton pulled her closer, comfortingly. And John Martin, looking up at the glittering stars, the stars from which long years ago the father of Philip Crain had come, nodded his great head slowly.

"Yes, he's gone," said Martin slowly. "He's gone home."

●

IN THE NEXT ISSUE

# GIANTS FROM ETERNITY

A Complete Book-Length Novel of Reborn Genius
Meeting the Future's Challenge!
By MANLY WADE WELLMAN

**LOST—A PET HATE**

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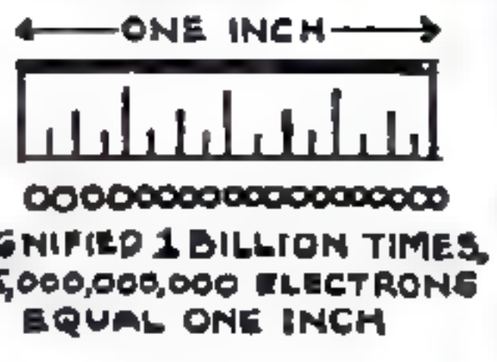
THEY CHANGED THE WORLD

# THE LIFE STORY OF ROBERT A. MILLIKAN

## DISCOVERER OF THE COSMIC RAY

BY JACK BINDER




WEIGHT OF LIGHTEST ATOM = 1,842 ELECTRONS.

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ROBERT ANDREWS MILLIKAN
BORN MARCH 22, 1868.

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**Next Issue: THE LIFE STORY OF LEONARD**

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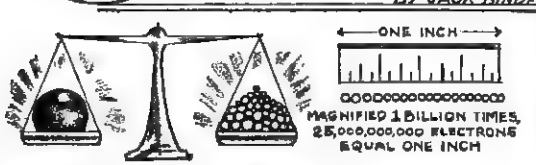




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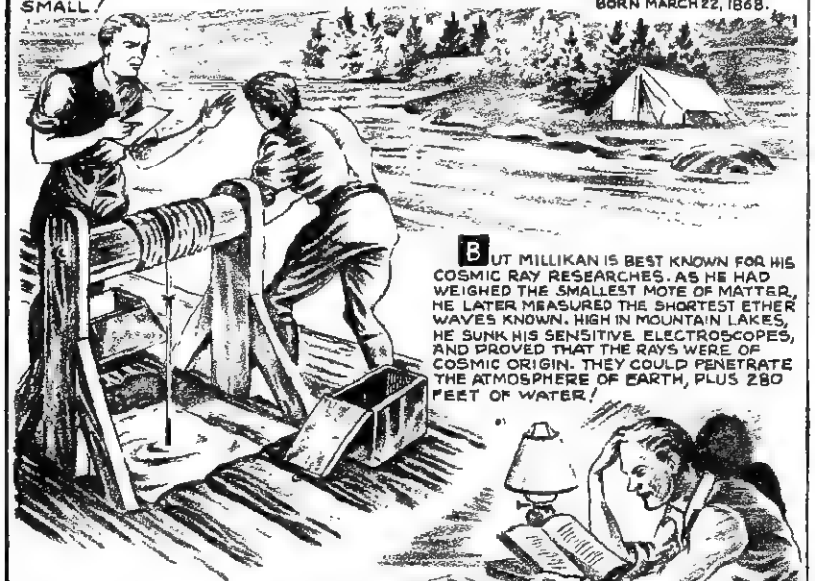

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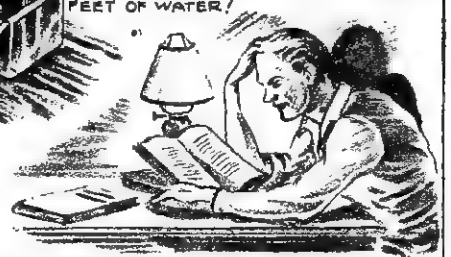

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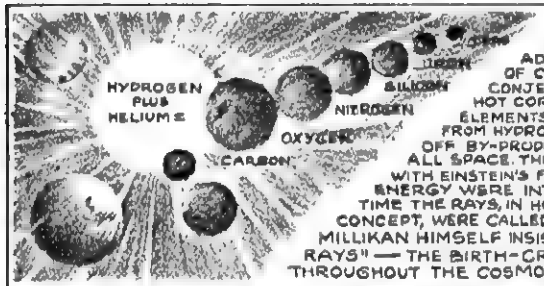


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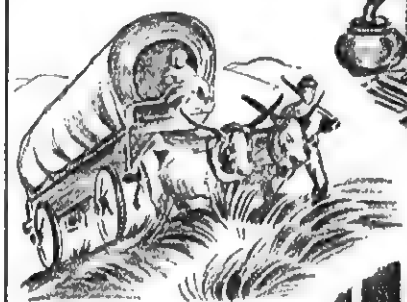

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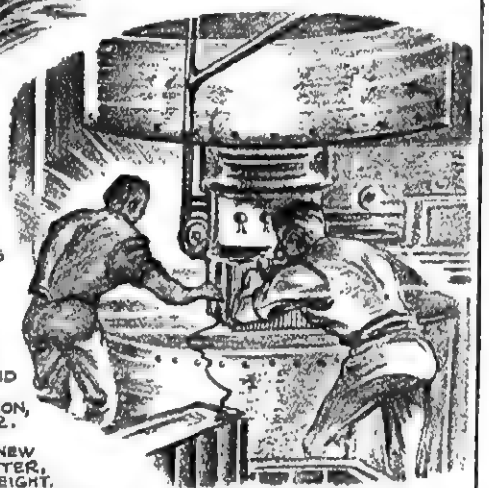

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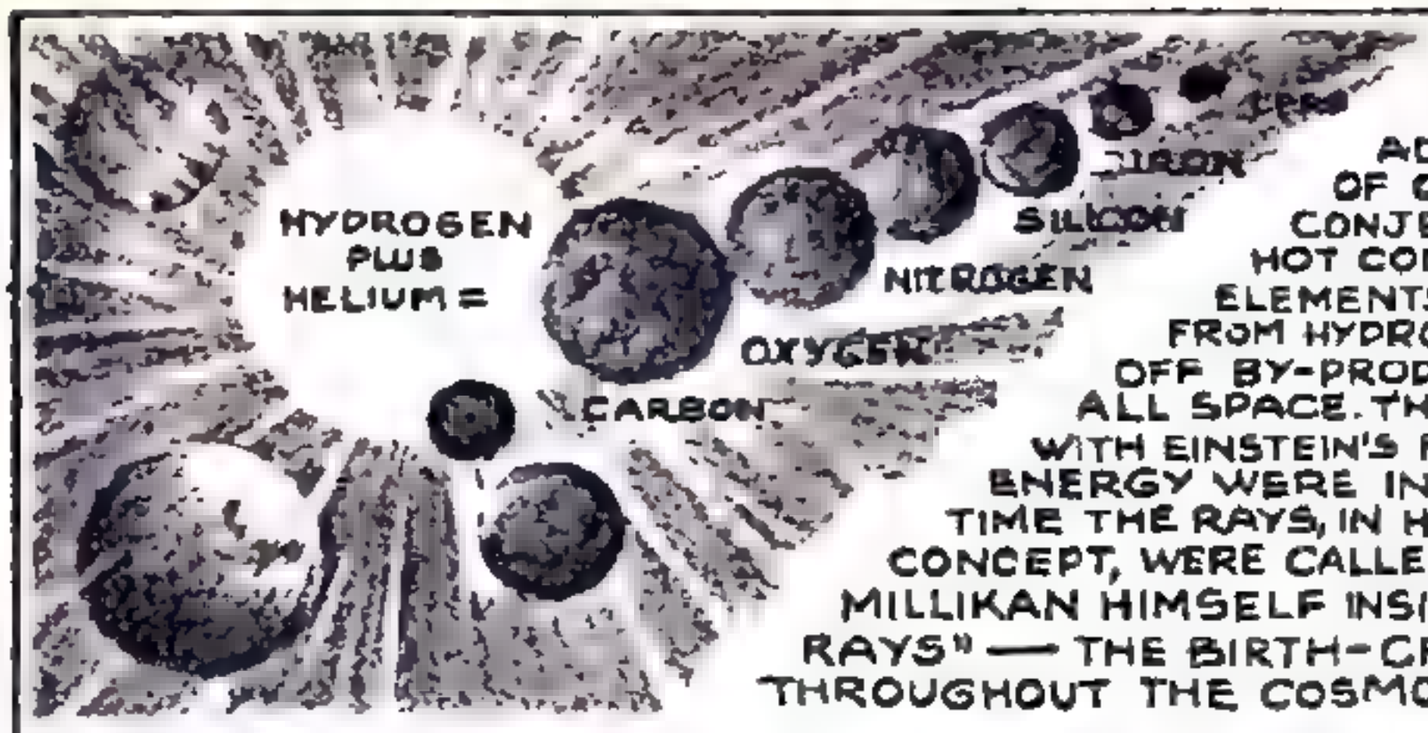


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## By STANLEY

*Author of "The Black Flame,"*

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"BUT what is reality?" asked the gnomelike man. He gestured at the tall banks of buildings that loomed around Central Park, with their countless windows glowing like the cave fires of a city of Cro-Magnon people. "All is dream, all is illusion; I am your vision as you are mine."

Dan Burke, struggling for clarity of thought through the fumes of liquor, stared without comprehension at the tiny figure of his companion. He began to regret the impulse that had driven him to leave the party to seek fresh air in the park. But he had needed escape; this was one party too many.

"You drink," said the elfin, bearded face, "to make real a dream. Is it not so? You drink to escape reality, and the irony is that even reality is a dream."

"Cracked!" thought Dan again.

"Or so," concluded the other, "says the philosopher Berkeley."

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"Berkeley?" echoed Dan. His head was clearing; memories of a Sophomore course in elementary Philosophy drifted back. "Bishop Berkeley, eh?"

"You know him, then? The philosopher of idealism—the one who argues that we do not see, feel, hear, taste the object, but that we have only the sensation of seeing, feeling, hearing, tasting."

"I—sort of recall it."

"Hah! But sensations are mental phenomena. They exist in our minds." He waved again at the light-flecked buildings. "You do not see that wall of masonry; you perceive only a sensation, a feeling of sight. The rest you interpret."

"You see the same thing," retorted Dan.

"How do you know I do? Even if you knew that what I call red would not be green if you could see through my eyes—even if you knew that, how do you know that I too am not a dream of yours?"

Dan laughed. "Of course nobody knows anything. You just get what information you can through the windows of your five senses, and then make your guesses. When you're wrong, you pay the penalty." His mind was clear now save for a mild headache. "Listen," he said suddenly. "You can argue a real thing away to an illusion; that's easy. But if your friend Berkeley is right, why can't you take a dream and make it real? If it works one way, it must work the other."

The beard waggled; elf-bright eyes glittered queerly at him. "All artists do that," said the old man softly. Dan

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felt that something more quivered on the verge of utterance.

"That's an evasion," he grunted. "Anybody can tell the difference between a picture and the real thing, or between a movie and life."

"But," whispered the other, "the realer the better, no? And if one could make a—a movie—very real indeed, what would you say then?"

"Nobody can, though."

The eyes glittered strangely again. "I can!" he whispered. "I did!"

"Did what?"

"Made real a dream." The voice turned angry. "Fools! I bring it here to sell to Westman, the camera people, and what do they say? 'It isn't clear. Only one person can use it at a time. It's too expensive.' Fools! Fools!"

"Huh?"

"LISTEN! I'm Albert Ludwig—Professor Ludwig." As Dan was silent, he continued, "It means nothing to you, eh? But listen—a movie that gives one sight and sound. Suppose now I add taste, smell, even touch, if your interest is taken by the story. Suppose I make it so that you are in the story, you speak to the shadows, and the shadows reply, and instead of being on a screen, the story is all about you, and you are in it. Would that be to make real a dream?"

"How the devil could you do that?"

"How? How? But simply! First my liquid positive, then my magic spectacles. I photograph the story in a liquid with light-sensitive chromates. I build up a complex solution—do you see? I add taste chemically and sound electrically. And when the story is recorded, then I put the solution in my spectacles—my movie projector. I electrolyze the solution, break it down; the older chromates go first, and out comes the story, sight, sound, smell, taste—all!"

"Touch?"

"If your interest is taken, your mind supplies that." Eagerness crept into his voice. "You will look at it, Mr.—?"

"Burke," said Dan. "A swindle!" he thought. Then a spark of recklessness glowed out of the vanishing fumes of alcohol. "Why not?" he grunted.

He rose. Ludwig, standing, came scarcely to his shoulder. A queer, gnomelike old man, Dan thought, as he followed him across the park and into one of the scores of apartment hotels in the vicinity.

In his room Ludwig fumbled in a bag, producing a device vaguely reminiscent of a gas mask, with goggles and a rubber mouthpiece. Dan examined it curiously, while the little bearded professor brandished a bottle of water liquid.

"Here it is!" he gloated. "My liquid positive, the story. Hard photography, infernally hard, therefore the simplest possible story. A Utopia—just two characters and you, the audience. Now, put the spectacles on. Put them on and tell me what fools the Westman people are!"

He decanted some of the liquid into the mask, and trailed a twisted wire to a device on the table, "A rectifier," he explained. "For the electrolysis."

"Must you use all the liquid?" asked Dan. "If you use part, do you see only part of the story? And which part?"

"Every drop has all of it, but you must fill the eye-pieces." Then as Dan slipped the device gingerly on, "So! Now what do you see?"

"Not a damn' thing, just the window and the lights across the street."

"Of course. But now I start the electrolysis. Now!"

There was a moment of chaos. The liquid before Dan's eyes clouded suddenly white, and formless sounds buzzed. He moved to tear the device from his head, but emerging forms in the mistiness caught his interest. Giant things were writhing.

The scene steadied; the whiteness was dissipating like mist in summer. Unbelieving, still gripping the arms of that unseen chair, he was staring at a forest. Incredible, unearthly, beautiful! Smooth boles ascended inconceivably toward a brightening sky, trees bizarre as the forests of the Carboniferous age. Infinitely overhead swayed misty fronds, and the verdure showed brown and green in the

heights. And there were birds — at least curiously lovely pipings and twitterings were all about him, though he saw no creatures—thin elfin whistlings like fairy bugles sounded softly.

He sat frozen, entranced. A louder fragment of melody drifted down to him, mounting in exquisite, ecstatic bursts, now clear as sounding metal, now soft as remembered music. For a moment he forgot the chair whose arms he gripped, the miserable hotel room. He imagined himself solitary in the midst of that lovely glade. "Eden!" he muttered, and the swelling music of unseen voices answered.

SOME measure of reason returned. "Illusion!" he told himself. Clever optical devices, not reality. He groped for the chair's arm, found it, and clung to it; he scraped his feet and found again an inconsistency. To his eyes the ground was mossy verdure; to his touch it was merely a thin hotel carpet.

The elfin buglings sounded gently. A faint, deliciously sweet perfume breathed against him. He began to want to believe that all this was no illusion, that it was true.

And then, far through the softening mists, he caught a movement that was not the swaying of verdure, a shimmer of silver more solid than mist. Something approached. He watched the figure as it moved, now visible, now hidden by trees. Very soon he perceived that it was human, but it was almost upon him before he realized that it was a girl.

She wore a robe of silvery, half-translucent stuff, luminous as starbeams. Her tiny white feet were bare to the mossy forest floor as she stood at no more than a pace from him staring dark-eyed. The thin music sounded again; she smiled.

Dan summoned stumbling thoughts. Was this being also—illusion? Had she no more reality than the loveliness of the forest? He opened his lips to speak, but a strained excited voice sounded in his ears. "Who are you?"

Had he spoken? The voice had come as if from another, like the sound of one's words in fever.

The girl smiled again. "English!" she said in queer, soft tones. "I can speak a little English." She spoke slowly, carefully. "I learned it from" —she hesitated—"my mother's father, whom they call the Gray Weaver."

Again came the voice in Dan's ears. "Who are you?"

"I am called Galatea," she said. "I came to find you."

"To find me?" echoed the voice that was Dan's.

"Leucon, who is called the Gray Weaver, told me," she explained smiling. "He said you will stay with us until the second moon from this. What are you called?"

"Dan," he muttered. His voice sounded oddly different.

"What a strange name!" said the girl. She stretched out her bare arm. "Come," she smiled.

Dan touched her extended hand, feeling without any surprise the living warmth of her rosy fingers. He had forgotten the paradoxes of illusion; this was no longer illusion to him, but reality, itself. It seemed to him that he followed her, walking over the shadowed turf that gave with springy crunch beneath his tread though Galatea left hardly an imprint. He glanced down, noting that he himself wore a silver garment, and that his feet were bare; with the glance he felt a feathery breeze on his body and a sense of mossy earth on his feet.

"Galatea," said his voice, "Galatea, what place is this? What language do you speak?"

She glanced back laughing. "Why, this is Paracosma, of course, and that is our language."

"Paracosma," muttered Dan, "Para—cosma!" A fragment of Greek that had survived somehow from a Sophomore course a decade in the past came strangely back to him. Paracosma! Land beyond-the-world!

Galatea cast a smiling glance at him. "Does the real world seem strange," she queried, "after that shadow world of yours?"

"Shadow land?" echoed Dan, bewil-

dered. "This is shadow, not my world."

The girl's smile turned quizzical. "Poof!" she retorted with an impudently lovely pout. "And I suppose, then, that I am the phantom instead of you!" She laughed. "Do I seem ghost-like?"

DAN made no reply; he was puzzling over unanswerable questions as he trod behind the lithe figure of his guide. It seemed a mile, perhaps, before a sound of tinkling water obscured that other strange music. They emerged on the bank of a little river, swift and crystalline, that rippled and gurgled. Galatea bent over the brink and cupped her hands, raising a few mouthsful of water to her lips. Dan followed her example, finding the liquid stinging cold.

"How do we cross?" he asked.

"You can wade up there, but I always cross here." She poised herself for a moment on the green bank, then dove like a silver arrow into the pool. Dan followed. The water stung his body like champagne, but a stroke or two carried him across to where Galatea had already emerged with a glistening of creamy bare limbs. Her garment clung tight as a metal sheath to her wet body; he felt a breath-taking thrill at the sight of her. And then, miraculously, the silver cloth was dry, the droplets rolled off as if from oiled silk, and they moved briskly on. The sweet pipings followed them, now loud, now whisper-soft, in a tenuous web of melody.

"Galatea!" said Dan suddenly. "Where is the music coming from?"

She looked back amazed. "You silly one!" she laughed. "From the flowers, of course. See!" She plucked a purple star and held it to his ear. True enough, a faint and plaintive melody hummed out of the blossom. She tossed it in his startled face and skipped on.

Soon they beheld the objective of their journey—a building of white, marble-like stone, single-storied and vine covered, with broad glassless windows. They trod upon a path of bright pebbles to the arched entrance and here, on an intricate stone bench, sat a gray-bearded patriarchal individual. Galatea addressed him in a liquid language that reminded Dan of the flower-pipings; then she turned. "This is Leucon," she said, as the ancient rose from his seat and spoke in English.

"We are happy, Galatea and I, to welcome you, since visitors are a rare pleasure here, and those from your shadowy country most rare."

Dan uttered puzzled words of thanks, and the old man nodded, reseating himself on the carven bench; Galatea skipped through the arched entrance, and Dan, after an irresolute moment, dropped to the remaining bench. Once more his thoughts were whirling in perplexed turbulence. Was all this indeed but illusion? Was he sitting, in actuality, in a prosaic hotel room, peering through magic spectacles that pictured this world about him, or was he, transported by some miracle, really sitting here in this land of loveliness?

"Leucon," said his voice, "how did you know I was coming?"

"I was told," said the other.

"By whom?"

"By no one."

"Why—someone must have told you!"

The Gray Weaver shook his solemn head. "I was just told."

Dan ceased his questioning, content for the moment to drink in the beauty about him, and then Galatea returned bearing a crystal bowl of the strange fruits. They were piled in colorful disorder, red, purple, orange and yellow, pear-shaped, egg-shaped, and clustered spheroids — fantastic, unearthly. He selected a pale, transparent ovoid, bit into it, and was deluged by a flood of sweet liquid, to the amusement of the girl.

"GALATEA," he said, "do you ever go to a city? What cities are in Paracosma?"

"Cities? What are cities?"

"Places where many people live close together."

"Oh," said the girl, frowning. "No. There are no cities here."

"Then where are the people of Paracosma? You must have neighbors."

The girl looked puzzled. "A man and a woman live off there," she said, gesturing toward a distant blue range of hills dim on the horizon. "Far away over there. I went there once, but Leucon and I prefer the valley."

"But Galatea!" protested Dan. "Are you and Leucon alone in this valley? Where—what happened to your parents—your father and mother?"

"They went away. That way—toward the sunrise. They'll return some day."

"And if they don't?"

"Why, foolish one! What could hinder them?"

"Wild beasts," said Dan. "Poisonous insects, disease, flood, storm, lawless people, death!"

"I never heard those words," said Galatea. "There are no such things here." She sniffed contemptuously. "Lawless people!"

"Not—death?"

"What is death?"

"It's—" Dan paused helplessly. "It's like falling asleep and never waking. It's what happens to everyone at the end of life."

"I never heard of such a thing as the end of life!" said the girl decidedly. "There isn't such a thing."

"What happens, then," queried Dan desperately, "when one grows old?"

"Nothing, silly! No one grows old unless he wants to, like Leucon. A person grows to the age he likes best and then stops. It's a law!"

Dan gathered his chaotic thoughts. He stared into Galatea's dark, lovely eyes. "Have you stopped yet?"

The dark eyes dropped; he was amazed to see a deep, embarrassed flush spread over her cheeks. She looked at Leucon nodding reflectively on his bench, then back to Dan, meeting his gaze.

"Not yet," she said.

"And when will you, Galatea?"

"When I have had the one child permitted me. You see"—she stared down at her dainty toes—"one cannot—have children—afterwards."

"Permitted? Permitted by whom?"

"By a law."

"Laws! Is everything here governed by laws? What of chance and accidents?"

"What are those—chance and accidents?"

"Things unexpected—things unforeseen."

"Nothing is unforeseen," said Galatea, still soberly. She repeated slowly, "Nothing is unforeseen." He fancied her voice was wistful.

Leucon looked up. "Enough of this," he said abruptly. He turned to Dan. "I know these words of yours—chance, disease, death. They are not for Paracosma. Keep them in your unreal country."

"Where did you hear them, then?"

"From Galatea's mother," said the Gray Weaver, "who had them from your predecessor—a phantom who visited here before Galatea was born."

Dan had a vision of Ludwig's face. "What was he like?"

"Much like you."

"But his name?"

THE old man's mouth was suddenly grim. "We do not speak of him," he said, and rose, entering the dwelling in cold silence.

"He goes to weave," said Galatea after a moment. Her lovely, piquant face was still troubled.

"What does he weave?"

"This." She fingered the silver cloth of her gown. "He weaves it out of metal bars on a very clever machine. I do not know the method."

"Who made the machine?"

"It was here."

"But Galatea! Who built the house? Who planted these fruit trees?"

"They were here. The house and trees were always here."

Dan thought a moment. "Were you born here?"

"I don't know." He noted in sudden concern that her eyes were glistening with tears.

"Galatea dear! Why are you unhappy? What's wrong?"

"Why, nothing!" She shook her black curls, smiled suddenly at him. "What could be wrong? How can one be unhappy in Paracosma?" She

sprang erect and seized his hand. "Come! Let's gather fruit for tomorrow."

She darted off in a whirl of flashing silver, and Dan followed her around the wing of the edifice. Graceful as a dancer, she leaped for a branch above her head, caught it laughingly, and tossed a great golden globe to him. She loaded his arms with the bright prizes and sent him back for the crystal bowl that reposed empty on the bench, and when he returned, she piled it so full of fruit that a deluge of colorful spheres dropped around him.

The little sun was losing itself behind the trees of that colossal forest to the west, and a coolness stirred among long shadows. Of a sudden, the flowers were still, and the brook gurgled alone in a world of silence. In silence too, Dan followed Galatea through a doorway.

The chamber within was a spacious one, floored with large black and white squares; exquisite benches of carved marble were here and there. Old Leucon, in a far corner, bent over an intricate, glistening mechanism, and as Dan entered he drew a shining length of silver cloth from it, folded it, and placed it carefully aside.

Galatea stood in a doorway to his left, leaning half-wearily against the frame; he placed the bowl of fruits on a bench at the entrance and moved to her side.

"This is yours," she said, indicating the room beyond. He looked in upon a pleasant, smaller chamber. A single glowing sphere, pendant by a chain from the ceiling, illuminated the room. Dan turned to the girl, whose eyes were still unwontedly serious.

"This is ideal," he said, "but, Galatea, how am I to turn out the light?"

"Turn it out?" she said. "You must cap it—so!" A faint smile showed again on her lips as she dropped a metal covering over the shining sphere. They stood tense in the darkness; Dan sensed her nearness achingly, and then the light was on once more. She moved toward the door, and there paused, taking his hand.

"Dear shadow," she said softly, "I hope your dreams are music." She was gone.

Dan stood irresolute in his chamber; he glanced into the large room where Leucon still bent over his work, and the Gray Weaver raised a hand in solemn salutation, but said nothing. He felt no urge for the old man's silent company and turned back into his room to prepare for slumber.

HE slept. Almost instantly, it seemed, the dawn was upon him and bright elfin pipings were all about him, while the odd ruddy sun sent a broad slanting plane of light across the room. He rose as fully aware of his surroundings as if he had not slept at all. He emerged into the central chamber, noting curiously that the globes still glowed in dim rivalry to the daylight. He touched one casually; it was cool as metal to his fingers, and lifted freely from its standard. For a moment he held the cold flaming thing in his hands, then replaced it and wandered into the dawn.

Galatea was dancing up the path, eating a strange fruit as rosy as her lips. She was merry again, once more the happy nymph who had greeted him, and she gave him a bright smile as he chose a sweet green ovoid for his breakfast.

"Come on!" she called. "To the river!"

She skipped away toward the unbelievable forest. Dan followed. Then they were laughing in the pool, splashing about until Galatea drew herself to the bank, glowing and panting. Strangely, he was neither tired nor breathless, with no sense of exertion. A question recurred to him, as yet unasked.

"Galatea," said his voice, "whom will you take as mate?"

Her eyes went serious. "I don't know," she said. "At the proper time he will come. That is a law."

"And will you be happy?"

"Of course." She seemed troubled. "Isn't everyone happy?"

"Not where I live, Galatea."

"Then that must be a strange place —that ghostly world of yours. A

rather terrible place."

"It is, often enough," Dan agreed. "I wish—" He paused. What did he wish? Was he not talking to an illusion, a dream, an apparition? He looked at the girl, at her glistening black hair, her eyes, her soft white skin, and then, for a tragic moment, he tried to feel the arms of that drab hotel chair beneath his hands—and failed! He smiled; he reached out his fingers to touch her bare arm, and for an instant she looked back at him with startled, sober eyes, and sprang to her feet.

"Come on! I want to show you my country." She set off down the stream, and Dan rose reluctantly to follow.

What a day that was! They traced the little river from still pool to singing rapids, and ever about them were the strange twitterings and pipings that were the voices of the flowers. They talked or were silent. Galatea twisted him a bright-blossomed garland for his head, and thereafter he moved always with a sweet singing about him. But little by little the red sun slanted toward the forest, and the hours dripped away. It was Dan who pointed it out, and reluctantly they turned homewards.

Galatea sang a strange song, plaintive and sweet, and again her eyes were sad.

"What song is that?" he asked.

"It is a song sung by another Galatea," she answered, "who is my mother." She laid her hand on his arm. "I will make it into English for you." She sang:

"The River lies in flower and fern,
In flower and fern it breathes a song,
It breathes a song of your return,
Of your return in years too long.
In years too long its murmurs bring—
Its murmurs bring their vain replies.
Their vain replies the flowers sing,
The flowers sing, 'The River Lies!'"

HER voice quavered on the final notes; there was silence save for the tinkle of water and the flower bugles. Dan said, "Galatea—" and paused. The girl was again somber-eyed, tearful. He said, huskily, "That's a sad song, Galatea. Why was your mother sad? You said everyone was happy in Paracosma."

"She broke the law," replied the girl tonelessly. "It is the inevitable way to sorrow." She faced him. "She fell in love with a phantom!" Galatea said. "One of your shadowy race, who came and stayed and then had to go back. So when her appointed lover came, it was too late. Do you understand? But she yielded finally to the law, and is forever unhappy, and goes wandering from place to place about the world." She paused. "I shall never break a law," she said defiantly.

Dan took her hand. "I would not have you unhappy, Galatea. I want you always happy."

She shook her head. "I am happy," she said, and smiled a tender, wistful smile.

They were silent a long time as they trudged the way homeward. Leucon sat on his bench by the portal.

"I am very tired," Galatea said, and slipped within.

Dan moved to follow, but the old man raised a staying hand.

"Friend from the shadows," he said, "will you hear me a moment?"

Dan paused, acquiesced, and dropped to the opposite bench. He felt a sense of foreboding; nothing pleasant awaited him.

"There is something to be said," Leucon continued, "and I say it without desire to pain you, if phantoms feel pain. It is this: Galatea loves you, though I think she has not yet realized it."

"I love her too," said Dan.

"Then woe to both of you! For this is impossible in Paracosma; it is a confliction with the laws. Galatea's mate is appointed, perhaps even now approaching."

"Laws! Laws!" muttered Dan. "Whose laws are they? Not Galatea's nor mine!"

"But they exist," said the Gray Weaver. "It is not for you nor for me to criticize them—though I yet wonder what power could annul them to permit your presence here!"

"I had no voice in your laws."

The old man peered at him in the

dusk. "Has anyone, anywhere, a voice in the laws?" he queried.

"In my country we have," retorted Dan.

"Madness!" growled Leucon. "Man-made laws! Of what use are man-made laws with only man-made penalties, or none at all? If you shadows make a law that the wind shall blow only from the east, does the west wind obey it?"

"Some of our laws may be stupid, but they're no more unjust than yours."

"Ours," said the Gray Weaver, "are the unalterable laws of the world, the laws of nature. Violation is always unhappiness. I have seen it, I have known it in another, in Galatea's mother, though Galatea is stronger than she." He paused. "Now," he continued, "I ask only for mercy; your stay is short, and I ask that you do no more harm than is already done. Be merciful; give her no more to regret."

Dan turned silent and unhappy to his own chamber.

Again he rose at the glow of dawn, and again Galatea was before him, meeting him at the door with her bowl of fruit. She deposited her burden, giving him a wan little smile of greeting, and stood facing him as if waiting.

"Come with me, Galatea," he said.

"Where?"

"To the river bank. To talk."

THEY trudged in silence to the brink of Galatea's pool. Dan noted a subtle difference in the world about him. Outlines were vague, the thin flower pipings less audible, and the very landscape was queerly unstable, shifting like smoke when he wasn't looking at it directly. And strangely, though he had brought the girl here to talk to her, he had now nothing to say, but sat in aching silence with his eyes on the loveliness of her face.

Galatea pointed at the red ascending sun. "So short a time," she said, "before you go back to your phantom world. I shall be sorry, very sorry." She touched his cheek with her fingers. "Dear shadow!"

"Suppose," said Dan huskily, "that I won't go. What if I won't leave here?" His voice grew fiercer. "I'll not go! I'm going to stay!"

The calm mournfulness of the girl's face checked him; he felt the irony of struggling against the inevitable progress of a dream. She spoke. "Had I the making of the laws, you should stay. But you can't, dear one. You can't!"

Forgotten now were the words of the Gray Weaver. "I love you, Galatea," he said.

"And I you," she whispered. "See, dearest shadow, how I break the same law my mother broke, and am glad to face the sorrow it will bring." She placed her hand tenderly over his. "Leucon is very wise and I am bound to obey him, but this is beyond his wisdom because he let himself grow old." She paused. "He let himself grow old," she repeated slowly. A strange light gleamed in her dark eyes as she turned suddenly to Dan.

"Dear one!" she said tensely. "That thing that happens to the old—that death of yours! What follows it?"

"What follows death?" he echoed. "Who knows?"

"But—" her voice was quivering. "But one can't simply—vanish! There must be an awakening."

"Who knows?" said Dan again. "There are those who believe we wake to a happier world, but—" He shook his head hopelessly.

"It must be true! Oh, it must be!" Galatea cried. "There must be more for you than the mad world you speak of!" She leaned very close. "Suppose, dear," she said, "that when my appointed lover arrives, I send him away. Suppose I have no child, but let myself grow old, older than Leucon, old until death. Would I join you in your happier world?"

"Galatea!" he cried distractedly. "Oh, my dearest—what a terrible thought!"

"More terrible than you know," she whispered, still very close to him. "It is more than violation of the law, it is rebellion! Everything is planned, everything was foreseen, except this; and if I have no child, her place will

be left unfilled, and the places of her children, and of their children, and so on until some day the whole great plan of Paracosma fails of whatever its destiny was to be." Her whisper grew very faint and fearful. "It is destruction, but I love you more than I fear —death!"

Dan's arms were about her. "No, Galatea! No! Promise me!"

She murmured, "I can promise and then break my promise." She drew his head down; their lips touched, and he felt a fragrance and a taste like honey in her kiss. "At least," she breathed, "I can give you a name by which to love you. Philometros! Measure of my love!"

"A name?" muttered Dan. A fantastic idea shot through his mind—a way of proving to himself that all this was reality, and not just a page that any one could read who wore old Ludwig's magic spectacles. If Galatea would speak his name! Perhaps, he thought daringly, perhaps then he could stay! He thrust her away.

"Galatea!" he cried. "Do you remember my name?"

SHE nodded silently, her unhappy eyes on his.

"Then say it! Say it, dear!"

She stared at him dumbly, miserably, but made no sound.

"Say it, Galatea!" he pleaded desperately. "My name, dear—just my name!" Her mouth moved, she grew pale with effort, and Dan could have sworn that his name trembled on her quivering lips, though no sound came.

At last she spoke. "I can't, dearest one! Oh, I can't! A law forbids it!" She stood suddenly erect, pallid as ivory carving. "Leucon calls!" she said, and darted away. Dan followed along the pebbled path, but her speed was beyond his powers; at the portal he found only the Gray Weaver standing cold and stern. He raised his hand as Dan appeared.

"Your time is short," he said. "Go, thinking of the havoc you have done."

"Where's Galatea?" gasped Dan.

"I have sent her away." The old man blocked the entrance; for a moment Dan would have struck him aside, but something withheld him. He stared wildly about the meadow—there! A flash of silver beyond the river, at the edge of the forest. He turned and raced toward it, while motionless and cold the Gray Weaver watched him go.

"Galatea!" he called. "Galatea!"

But the world was growing cloudy; Paracosma was dissolving around him. Hopelessly he cried out her name—"Galatea!"

After an endless time, he paused; something familiar about the spot struck him, and just as the red sun edged above him, he recognized the place—the very point at which he had entered Paracosma! A sense of futility overwhelmed him as for a moment he gazed on an unbelievable apparition —a dark window hung in mid-air before him, through which glowed rows of electric lights. Ludwig's window!

It vanished. But the trees writhed and the sky darkened, and he swayed dizzily in turmoil. He realized suddenly that he was no longer standing, but sitting in the midst of the crazy glade, and his hands clutched something smooth and hard—the arms of the miserable hotel chair. Then at last he saw her, close before him—Galatea, with sorrow-stricken features, her fear-filled eyes on his. He made a terrific effort to rise, stood erect, and fell sprawling in a blaze of corruscating lights.

He struggled to his knees. Walls—Ludwig's room—encompassed him; he must have slipped from the chair. The magic spectacles lay before him, one lens splintered and spilling a fluid no longer water-clear, but white as milk.

"God!" he muttered.

HE felt shaken, sick, exhausted, with a bitter sense of bereavement, and his head ached fiercely. The room was drab, disgusting; he wanted to get out of it. He glanced automatically at his watch; four o'clock—he must have sat here nearly five hours. For the first time, he noticed Ludwig's absence; he was glad of it and walked dully out of the door to an automatic elevator. There was no response to

his ring; someone was using the thing. He walked three flights to the street and back to his own room.

In love with a vision! Worse—in love with a girl who had never lived, in a fantastic Utopia that was literally nowhere. He threw himself on his bed with a groan that was half a sob.

He saw finally the implication of the same Galatea. Galatea—Pygmalion's statue, given life by Venus in the ancient Grecian myth. But his Galatea, warm and lovely and vital, must remain forever without the gift of life, since he was neither Pygmalion nor God.

He woke late in the morning, staring uncomprehendingly about for the fountain and pool of Paracosma. Slow comprehension dawned. How much—how much—of last night's experience had been real? How much was the product of alcohol? Or had old Ludwig been right, and was there no difference between reality and dream?

He changed his rumpled attire and wandered despondently to the street. He found Ludwig's hotel at last. Inquiry revealed that the diminutive professor had checked out, leaving no forwarding address.

What of it? Even Ludwig couldn't give what he sought, a living Galatea. Dan was glad that he had disappeared; he hated the little professor. Professor? Hypnotists called themselves "professors". He dragged through a weary day and then a sleepless night on the train to Chicago where his home was.

* * * * *

IT was mid-winter when he saw a suggestively tiny figure ahead of him in the Loop. Ludwig! His cry was automatic, "Professor Ludwig!"

The elfin figure turned, recognized him, smiled. They stepped into the shelter of a building.

"I'm sorry about your machine, Professor. I'd be glad to pay for the damage."

"Oh, that was nothing—a cracked lens. But you—have you been ill? You look much the worse."

"It's nothing," said Dan. "Your show was marvelous. Professor—marvelous! I'd have told you so, but you were gone when it ended."

Ludwig shrugged. "I went to the lobby for a cigar."

"It was marvelous!" repeated Dan.

"So real?" smiled the other. "Only because you co-operated, then. It takes self-hypnosis."

"It was real, all right," agreed Dan glumly. "I don't understand it—that strange beautiful country."

"The trees were club-mosses enlarged by a lens," said Ludwig. "All was trick photography, but stereoscopic, as I told you—three dimensional. The fruits were rubber; the house is a summer building on our campus—Northern University. And the voice was mine; you didn't speak at all, except your name at the first, and I left a blank for that. I played your part, you see; I went around with the photographic apparatus strapped on my head, to keep the viewpoint always that of the observer. See?" He grinned wryly. "Luckily I'm rather short, or you'd have seemed a giant."

"Wait a minute!" said Dan, his mind whirling. "You say you played my part. Then Galatea—is she real too?"

"Tea's real enough," said the Professor. "My niece, a senior at Northern, and likes dramatics. She helped me out with the thing. Why? Want to meet her?"

Dan answered eagerly, happily. An ache had vanished, a pain was erased. Paracosma was attained at last!

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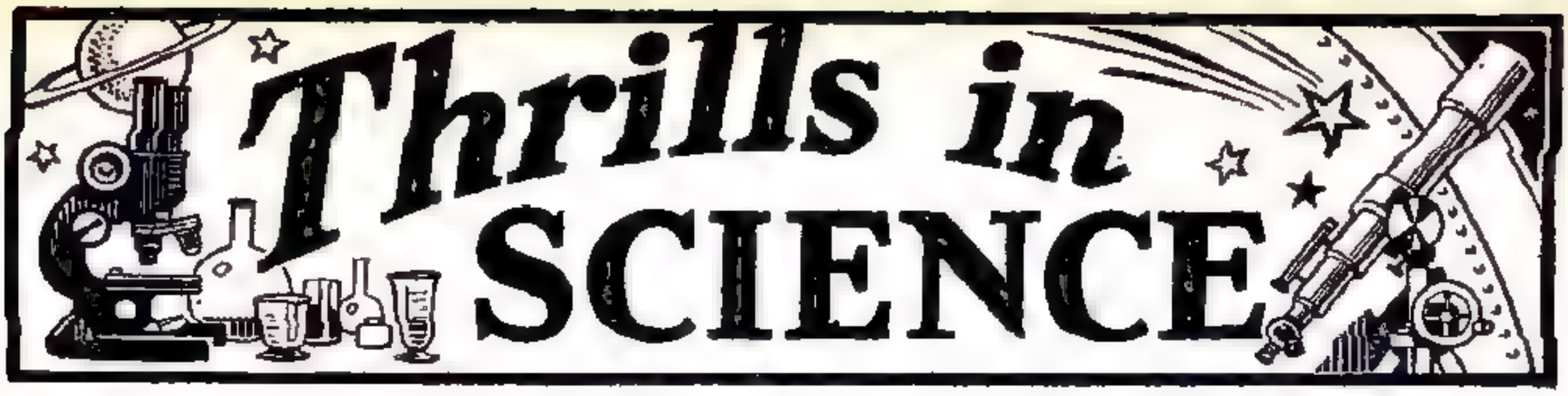


**Thumbnail Sketches of Great Men and Achievements**

**By MORT WEISINGER**

# THE TWIST OF A DIAL

THE electric motor hummed plaintively as it drove the gears connected to three whirling, perforated plates that composed the first crude television receiver. The hand of John Logie Baird trembled as he carefully tuned the condensers that were picking up radio impulses emanated by the transmitter in the next room.

His hand trembled partly because he had been working slavishly for long hours, barely taking time to sleep. Nor had his meals been regular. Consequently, he was thin and undernourished, as he had been for two years. Also, his attic workroom was poorly heated, and outside howled a cold autumn wind. It was October, 1925, in London.

But the tall Scot's hand trembled mostly because its manipulation would soon tell him whether he had succeeded—or failed again. Friends, business acquaintances, learned engineers had all told him he was a fool to hope to achieve his aim.

To broadcast images over radio waves was fantastic, impossible. They had advised him

*John Logie Baird*

to go back into the business world, where he belonged, selling soap and food products.

Perhaps this very twist of the dial, this instant, would decide his future for him. If he failed now, he might have to give up utterly, since both his health and credit were near exhaustion.

If he succeeded, on the other hand—if the face of the boy in the next room appeared on his flickering screen—then money and backing would be forthcoming and he would be able to go on and perfect the machine.

There—the condensers were tuned. Little Willy Taynton's face should appear. Baird looked eagerly at the ground-glass screen, which glowed faintly.

But no face was there. Nothing. Not even an outline, or the faintest interplay of light and shadow. Failure!

Baird slumped back. His thin shoulders drooped as though his whole spirit had been drained from him. Failure! The thought was bitter after all he had sacrificed.

He tried to think of something that might have gone wrong. But the apparatus was working smoothly. The fluctuating bulb was releasing its light signals from the transmitter in the next room.

The three perforated discs were perfectly synchronized, splitting the light beam into a tiny pencil that moved dozens of times a second across the screen, forming a square of light. But the square of light showed no image. The boy's face was not being transmitted, as he had hoped.

So the machine was a failure—junk! All its mechanical ingenuity was a delusion, as the outlines of the dummy's head he had thought he'd seen an hour ago was an illusion. Junk—failure—back to selling soap—fool—debts—John Logie Baird's mind was agonized in that moment of defeat.

He stepped wearily into the next room, to

tell the boy he could leave. Suddenly his head jerked up; his eyes widened. The boy, instead of sitting in front of the scanning lens, where Baird had placed him, was back from it, out of range.

"I—I can't stand it—the lights are too hot!" stammered the boy. "That's why I left my seat!"

"Nonsense!" snapped Baird. He drew a half-crown coin from his pocket, his last, and offered it. The boy snatched it and bravely sat in the proper position, squinting against the bright scanning light.

The inventor, his heart singing with renewed hope, ran back to the receiving room. Suddenly he let out a wild, exultant whoop. The half-frightened face of Willy Taynton stared out at him from the glass screen. It was a dim image, a little distorted, and at times it flickered and danced—but it was unmistakably a face that could be recognized!

Another milestone in the development of television had been reached.

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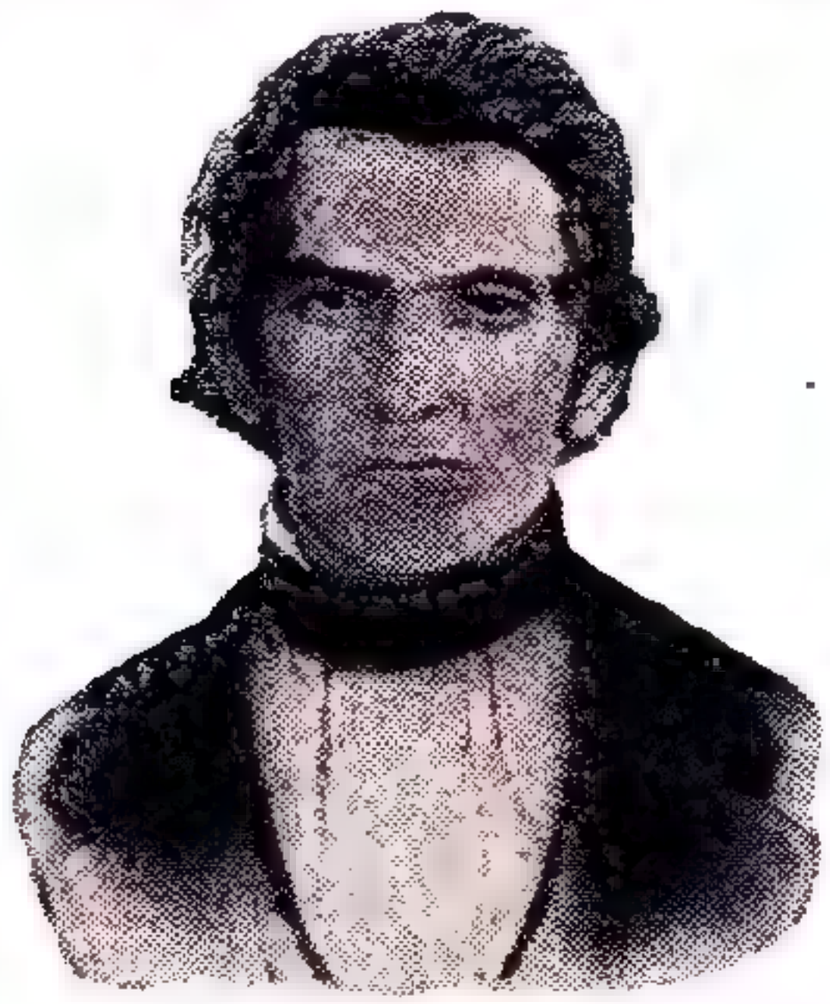
# THE INVENTOR NOBODY KNEW

GLISTENING beads of sweat trickled from young Thomas Davenport's furrowed brows as he pounded his anvil, the angry roar of the furnace swirling in his ears. The mighty blows sent ripples along the muscles of his corded arms as he battered the shapeless metal into useful form.

Occasionally the youth paused a moment from his labors. He would gaze wistfully to his right. There stood his employer, the best blacksmith in Williamston, Vermont. It was fun to see him work. His boss was a skinny man, about as strong as a scarecrow. Yet he did his work skillfully.

The reason was a strange one. Tom Davenport's employer did not use the heavy hammer and anvil to mould his horseshoes, his chains. No, he used a wondrous mechanical device . . . a trip-hammer . . . a mechanical hammer deriving its energy from water power.

This mechanical device fascinated young Davenport. He realized fully the superiority



*Thomas Davenport*

of the machine as compared to bare hands. He thought of his own little workshop at home. Wheels, cogs, wires—some day he would invent something from all these donations given him by the junkman.

The years rolled by. Davenport moved to Brandon, Vermont. There he married. But he still kept dreaming. Some day he would invent something that would bring him fame and fortune. All he wanted was one idea.

Then one summer day in 1833 his brother, Oliver, brought him interesting news.

"Tom," his brother told him, "they've got something new in Crown Point, New York. Professor Joseph Henry, of Albany, has invented a great magnetic battery. Why, they say it's so powerful it can suspend a blacksmith's anvil in mid-air!"

Right then and there Tom Davenport made up his mind.

"I've got to see that magnet, Oliver!" he said determinedly. "And you've got to help me!"

So the two brothers left their home in Vermont. For weeks they traveled with their horse and cart until they arrived in Crown Point. There they found the fabled magnet. Tom studied it carefully. Why, it looked like an ordinary horseshoe, like the ones he had made as a youth. There were few differences. The arms were about ten inches long, and were wound with wire back and forth.

Breathlessly, the Davenports watched a demonstration of the magnet's powers that very day. By the wizardry of the invisible electrical energy, the magnet was able to suspend heavy metal objects many feet from the ground.

"There's a future in that," Tom told his brother. "A new power for the human race . . . something to take the place of steam and save the lives lost by the explosions of engines of today. Oliver, we've got to buy that magnet!"

Professor Henry wanted seventy-five dollars for his magic magnet. He might just as well have asked for seventy-five thousand dollars. For both brothers were penniless. Finally, the two brothers sold their horse and cart, exchanged the money for the magnet, and began their weary trail home. But their steps were light. The treasure was theirs.

Home, Oliver Davenport thought of an idea.

"Look, Tom," he said. "We can make money exhibiting this magnet. There are many people who would pay a small price to

see it work!"

But Tom Davenport wasn't listening. He was dreaming again.

"If this magnet, weighing three pounds," he said aloud to himself, "can lift one hundred and fifty pounds, I wonder how much a magnet weighing one hundred pounds could lift. But first I've got to understand how this one works!"

Suddenly, amid startled protests from his brother, Tom Davenport began taking apart the valuable magnet. He pried away every inch of wire, uncoiled the entire works. Hours later he finished. At last he understood the mechanical principles behind the operation of the magnet. Now he was going to build a bigger and better one.

The original magnet was wound with silk for insulation. Where was he going to get the expensive fabric for his experiments? He thought for a moment, then consulted his wife, Emilie. Yes, she would get him the silk he needed. She had but one beautiful dress, the dress she had worn at her wedding when, as a bride, she had promised to be Tom Davenport's wife . . . for better or worse.

Tom Davenport took that dress, ripped it into multiple strands, and eventually succeeded in manufacturing his giant magnet. In July, 1834, he was able to move a wheel about seven inches in diameter at the rate of about thirty revolutions a minute with a variation of his device. It was the greatest thrill of his life.

Like Fitch and Runmey, Davenport was ahead of his time. The steam engine and the locomotive were just coming into their own in public regard, and conditions had not yet arisen demanding other forms of power. As a matter of fact, more than thirty years passed after Davenport's death before either the electric motor or the electric railway became actualities.

When they did, they incorporated Davenport's ideas with incidental improvements. Although he died a poor man, Davenport had actually produced the electric motor which had been the pioneer of millions of motors now running all over the world, and should be listed with the immortal benefactors of mankind.

Thomas Davenport had waited years for his idea—and the world will be using it for many years to come!

---

# THE GREAT PREDICTION

THE famous Edmund Halley stared into the shining, eager eyes of the youth seated beside him and scrubbed his snowy white beard. The boy, Alexis Claude Clairaut, was not yet out of his teens, yet Halley, a man of seventy-five, felt like a child in his presence.

The boy's voice was level, mature; though he was young in years, there was much about his bearing that stamped him as a man. Halley had marveled at many wonders in his more than seven decades of life, but never had he seen so much wisdom stored in one curly-locked head.

"Then, Professor Halley," the boy said respectfully, "if your calculations are correct, the great comet of 1682—the comet they have named 'Halley's comet' in your honor—should return in our skies fifteen years from now, in the year 1757! We will be able to see your comet then?"

Professor Edmund Halley smiled wanly. "No, Alexis," he said falteringly. "*We* won't be able to see the return of this comet. I am an old man. To see this great comet but once in a lifetime is fortunate, indeed. But you are young, and you will live to see it blaze in the heavens."

The boy remained quiet for a moment, regretful for the thoughtless way he had worded his question.

"Tell me, please, Professor Halley," he said at last, "why are you so certain the comet will appear at the time you predict?"

The aged astronomer extended his arm and tapped the sheaf of papers on his desk with his index finger.

"Proof, my boy!" he declared huskily. "And I've got it! The chronicles of scientists before us . . . the records of civilization. They all point to one unimpeachable fact . . . that this great comet has a closed orbit and returns to our skies every seventy-six years! By determining the parabolic elements of a number of comets from recorded observations, I have identified the comet of 1682 with one which had previously appeared in 1607 and with one which was observed by Apian at Ingolstadt in 1531. Thus, I am extremely confident in my prediction that this comet will return at the end of the year 1757!"

The boy rose. "I can't tell you how grateful I am for this meeting with you, Professor Halley," he said earnestly. "I shall never forget it. Your calculations are truly miraculous. But I must go now, sir. It is getting late."

"Stay, my son," Halley urged. "You make an old man happy. I would like to tell you how the perihelion distance of this comet was discovered."

Young Alexis Clairaut shifted his weight from his right foot to his left. He fumbled with his hat uneasily.

"I am sorry, Professor Halley," the nineteen-year-old lad said nervously. "But I really must leave. You see, I am scheduled to give a lecture tonight at the Academy of Science. Won't you come along?"

Professor Halley's eyes arched upward. He had almost forgotten! Alexis Clairaut was a genius. At the age of 10 he had studied

abstruse works on infinitesimal analysis and conical sections; before he was 13 he had presented a memoir on curves to the French Academy of Sciences; at 16 he had published his first work, on curves of double curvature. And at 18 he had been elected a member of the Academy!

The old scientist shook his head. "Run along, Alexis," he said softly. "But visit me again—soon!"

Alexis Claude Clairaut never saw the distinguished astronomer again, for Halley died a few months later, in 1742. All England mourned his passing, then stood by breathlessly for a fifteen-year vigil, wondering whether Halley's comet would make its predicted return.

The years went by swiftly. At last—1757. Alexis Clairaut, now world-famous for his mathematical researches, threw aside his telescope, rubbed his burning eyes.

"Well, Monsieur Clairaut, where is your Professor Halley's comet?" came the mocking exclamation of a rival scientist, D'Alembert. "You have searched the skies for two weeks now, yet there is no sign of this comet. But do not worry, *mon ami*. Perhaps, if we will wait another seventy-six years, Monsieur Halley's comet will come again!" He laughed sarcastically. "Maybe!"

Clairaut was quick to defend Halley's prophecy. "Monsieur D'Alembert," he snapped irritably, "Professor Halley's calculations are correct. I have studied his papers, gone over them a thousand times. Why, the comet of 1682 even appeared in 1066, in William the Conqueror's time. It is pictured in the Bayeux Tapestry. The comet will appear—just as Professor Halley predicted!"

"Bah! You are stupid, to follow the teachings of Halley. This fool—he could not even predict the weather!"

And so it went. The astronomers of Clairaut's day scoffed at Halley's prediction, ridiculed Clairaut for his faith in the prophecy. But Clairaut was adamant. The memory of his meeting with the aged Halley was something time would never erase. He could never forget how intensely sincere the old man had been, how penetrating his logic. But there was something wrong somewhere. What was it, in the name of the gods?

Clairaut buried himself in mathematical research. Finally, he had it. Certain disturbances of the planets in the path of the comet had delayed its course. Clairaut's figures showed that the comet would return . . . but two years later. Halley could hardly be blamed for not anticipating these delicate factors.

In March, 1759, Alexis Clairaut stood on his rooftop, staring triumphantly at the

*Halley, Astronomer-royal to Charles II*

celestial phenomenon that hung eerily over the land. It was a phenomenon unmatched for grandeur except perhaps by an eclipse of the sun. The long, shimmering tail which streamed from an incandescent head many times brighter than the most scintillant star in the heavens seemed to be unwinding from some cosmic spool below the Earth.

Here was Halley's comet. A little late, yes. But the important thing was that its return to Earth had been predicted. Clairaut was happy. He stayed up all night watching the flight of the comet. But he didn't see it so well. It's hard to see well—through tears.

# SCIENCE ?? Question ?? BOX

## THE NUMBER OF STARS

Editor, SCIENCE QUESTION BOX:

I have read somewhere that astronomers compute the number of stars in our siderial system to be about 30,000,000,000 in number. How was this number arrived at?—E. K., Milwaukee, Wisconsin.

Nobody can count the stars in the galaxy, because it is impossible, even with our greatest telescopes, to see or photograph all of them. The problem must be attacked by indirect methods. One of these is based on the discovery that the sun, one of the stars of the system, revolves around the galactic center in an orbit of such gigantic size—65,180 light-years in diameter—that 200,000,000 or more years are required for a single revolution.

With these data at hand it is possible, by applying the law of universal gravitation, to compute the total mass (weight) of the stars within the solar orbit. Astronomers have a pretty good idea of the average mass of the stars in the immediate neighborhood of the sun. Assuming that this average holds good throughout the galaxy, it is then possible to arrive at a rough estimate of the total number of stars.—Ed.

## CHANGE IN LENGTH OF DAY

Editor, SCIENCE QUESTION BOX:

Recently, newspapers reported a statement from the Smithsonian Institution which announced that the length of the day is very slowly changing because the friction caused by the tides is slowing down the earth. Can you be good enough to explain to me how the difference in the length of the day is noted?—B. E. L., Phil., Pa.

Our knowledge of the change in the length of the day depends almost entirely on the study of ancient eclipses of the sun by the moon. The occurrence of these eclipses is not the same as calculation shows it should be if the revolving earth had maintained its rate. The earth moves so fast on its axis that if the moon is not at the appointed place at the given moment, the earth can slip around an appreciable amount before the meeting with the sun occurs.

In this way a total eclipse occurs elsewhere than in the place predicted. The same thing occurs if the earth has been going round more slowly than has been calculated.

Several scientists have examined these old records. The question is not a simple one, chiefly because the historians who wrote them were not expert in observing the phenomena or in gathering the particular kind of information that is needed by the astronomer.—Ed.

## MENTAL WIZARDS

Editor, SCIENCE QUESTION BOX:

You frequently hear of these mental wizards—people who are supposed to be so gifted that they can read a printed page in a moment, because their eyes are photographic. Is there any scientific reason for this?—J. R., Stamford, Conn.

The "photographic eye," capable of reading an entire page of print at a glance, is a myth. Eye movement photographs of subjects taken while they were reading d.d not reveal a single person with such a magical eye, Dr. J. F. Neumueller, director of the American Optical Company's bureau of visual science, has learned. Only one reader with a reading span of six to eight words per glance was found. The average reader of the college level had a span of 1.25 words. However, the average person, the scientist stated, does not use his maximum reading glance.—Ed.

## MAN'S DEEPEST DESCENT

Editor, SCIENCE QUESTION BOX:

We know how high up man has ascended. But how deep has he delved into the earth? What is the world's record?—O. O. B., Chicago, Ill.

The deepest hole in the earth is an oil well recently completed in the San Joaquin valley about four miles west of Wasco, Calif. It penetrated the earth's crust to a depth of 15,004 feet—almost three miles.

Temperature readings, taken under extremely difficult conditions, indicated temperatures ranging from 196 degrees F. at 6000 ft. to 268 degrees at 15,000 ft., or 1 degree increase for every 125 ft. The similarity of temperatures in the lower horizons to those in other wells at shallower depths, suggests the possibility that the distance of a given point above the basement rocks has more bearing on its temperature than its distance below the earth's surface.—Ed.

In this department the editors of STARTLING STORIES will endeavor to answer your questions on modern scientific facts. Please do not submit more than three questions in your letter. As many questions as possible will be answered here, but the editors cannot undertake any personal correspondence. Naturally, questions of general interest will be given the preference. Address your questions to SCIENCE QUESTION BOX, STARTLING STORIES, 22 West 48th Street, New York City.

## Earth's Speed Changes, and the Result Is—

# THE LOST HOUR

### By ALEXANDER SAMALMAN

*Author of "The Changer of History," "The Last Straw," etc.*

ONE day in March, 1980, Earth's scientists discovered that the world had lost one hour of time.

Beneath the globe's surface, a molten mass of matter, which for a century had bubbled and boiled as if stirred by the fires of hell, subsided in its mad upward surge.

Concurrently, fissures on the crust of the Earth closed; there was a change in the eternal rhythm of Earth's contraction and expansion, and a consequent lowering of its surface.

Local disturbances were reported; however, as the severest shocks were felt at the North and South Poles, and under the Atlantic and Pacific Oceans, no general cataclysm took place.

The occurrence was the subject of a lengthy statement by Professor Aldous Grant, world-renowned physicist. Professor Grant was quoted as follows in the *Daily Record* for March 10, 1980:

"The phenomena which we are witnessing are not unfamiliar to scientists, although they have never been as marked as at present. Because of internal disturbances, our sphere's rate of rotation, or the length of the terrestrial day, is undergoing a change.

"As early as 1880, astronomers noticed certain irregularities in the motion of the moon. These were inexplicable, and in a strict sense are inexplicable to the present day.

"Irregularities in the motion of the sun were also observed. Checking these against the irregularities of the moon, it was discovered that they coincided. This left no alternative other than the assumption that the true change is in the speed of the Earth, and *not* in the speed of either sun or moon. At various times in the past, notably in 1790, in 1897, in 1917, and in 1950, the Earth's speed was subjected to sudden changes.

"These changes have been attributed to contraction and expansion of the Earth's crust due to altered temperatures within the molten layers. In the nineteenth century the effect of these erratic pulsations was the lengthening of the year by one second. In 1950, it was observed that an opposite effect was obtained, the apparent length of the year becoming shorter by almost a full minute.

"The present disturbances, however, bid fair to break all records. We have been losing time at an unbelievably swift rate. Nothing has as yet been done to adjust ourselves to this acceleration. Nevertheless, it is doubtful whether—"

* * * * *

IN a dark prison cell, a man was preparing to die. Praying fervently, he sought to make peace with his God.

Ralph Frazier knew he was innocent but the circumstantial evidence of the case was all against him. And so he had to die.

The sentence was definite, left no

room for doubt. He was in a strange land and thus far nobody had come to his defense.

The words echoed in his tortured mind:

"To be hung by the neck until dead, on the morning of March 11, 1980, at or before five o'clock—"

It was shortly before the fatal hour when they called for Ralph Frazier, and marched him into the prison yard. He looked up at the sky for what he thought would be the last time—and suddenly he gasped. The sun was high in the heavens.

"Look, *padre,*" he said to the dignified figure at his side. "It is past dawn."

The guards gaped their astonishment. In the prison yard stood an ancient sundial. Ralph Frazier pointed to it. "It is six o'clock according to that sundial over there," he declared.

It was true. Although every clock in the vicinity proclaimed the hour of five, the evidence of the sundial could not be denied.

"Our clocks must be out of gear," said the warden. "But it makes no difference. Let's go ahead."

"Ah, no," spoke the *padre.* "The young man must not be executed for God has wrought a miracle on his behalf. You must grant him the privilege of a re-trial, according to the laws of this community."

Benevolently, the *padre* patted Ralph Frazier's head.

"My son," he said, "thank the Lord for this precious chance that has come to you, to prove your innocence."

Ralph Frazier was conducted back to his cell, where he flung himself upon the stone floor and wept in prayer and gratitude. . . .

* * * *

DR. JAMES HOSKINS was roused from his sleep by the insistent ringing of the telephone. He looked out of the window and saw that it was dawn.

The voice over the wire was anxious and grief-stricken.

"We waited until day came," the mother spoke nervously, "but the baby's condition hasn't improved. He suffered all night and is very feverish now. Oh, Doctor, we don't know what to do and if you can hurry—"

It meant a long trip across extremely bad roads in the heart of the woods. Dr. Hoskins sighed as he dressed. Life wasn't easy.

When he arrived at the baby's bedside he took one look at the flushed face of the tossing infant and rolled up his sleeves and set to work.

"He'll pull through, all right," he said comfortingly. "But if you'd waited another ten minutes before calling me it would have been too late."

* * * * *

THE dictator of a large empire was giving his final instructions to his espionage chief.

"You hold the fate of Esthinia in your hands," he said gravely. "My people there are ready to overthrow the government—but they need your guidance. Your presence would electrify them, spur them into action."

"But I can't reach Esthinia," said the spy. "Not if, as you say, the mission is so secret that I can't use a plane. The route is heavily guarded and there's a price on my head in the intervening territory."

"Under cover of night, you can work your way through," the dictator advised. "I order you to go now—and you will be there in time. . . . You must not use a conveyance of any kind, for your preparations would be observed and there's no one I can trust. This is of the utmost importance."

As he made his way through forest and field in the darkness, the spy realized the vast significance of his mission. Once he presented himself in Esthinia, the spark would be put to the powder keg. Revolution would flame! There would be war and conquest, glory and widespread disaster! But—the Esthinians would not act without him.

The dictator wanted revolt—it would establish him as the ruler, the man of destiny over a much larger empire than he now controlled.

If, however, the spy were stopped before reaching his destination, the threatened uprising would peter out.

Nearer and nearer he came to the border.

The darkness and his own cleverness in avoiding detection were serving him well.

Suddenly he looked up and was startled out of his wits. Had the night passed so quickly? The fingers of dawn were beginning to paint the sky. . . .

Now the spy became frantic, hastened toward his goal. It was a mad fight against time. Scratched and bruised, he tried to run through bramble and bush, futilely pounded against obstructing trees.

It was no use. Lighter and lighter it grew, and he could no longer hide himself while traveling. If only he had another hour's time! He crouched under the outspread branches of a protective tree, and it was then a sentry saw and recognized him.

As he was led away to a place of detention, the spy trembled at the thought of the dictator's mighty wrath.

Today was the day to strike—and he had failed, and another dream of world domination was shattered.

* * * * *

"—doubtful whether," the report of the learned Professor Grant went on, "the current acceleration of the Earth will have any noticeable influence on the Earth's population. Perhaps the majority of individuals will be completely unaware of what has happened. Only the most astute will understand the cosmic occurrence—and even they will be at a loss to explain the amazingly swift, terrific contraction and consequent acceleration of the Earth.

"I predict that though we shall have lost an entire hour by tomorrow, March eleventh, life will go on in much the same way, and people will devote their energies to quite the usual pursuits. Granted, of course, that present calculations are not upset by unforeseen eruptions.

"Though of immense significance from a scientific viewpoint, this phenomenon will pass almost utterly unmarked by, and of no importance whatever to, the hurrying and scurrying beings who make up the major population of this globe. They will soon become accustomed to the changed time cycle, and after official action is taken will accept it with the same nonchalance with which they accept Daylight Saving schedules."

NEXT ISSUE

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GIANTS FROM ETERNITY
Complete Novel of the Future
By MANLY WADE WELLMAN

•

THE LIFE-STORY OF
LEONARDO DA VINCI
IN PICTURES

•

CROSSWORD PUZZLE

•

AND MANY OTHER
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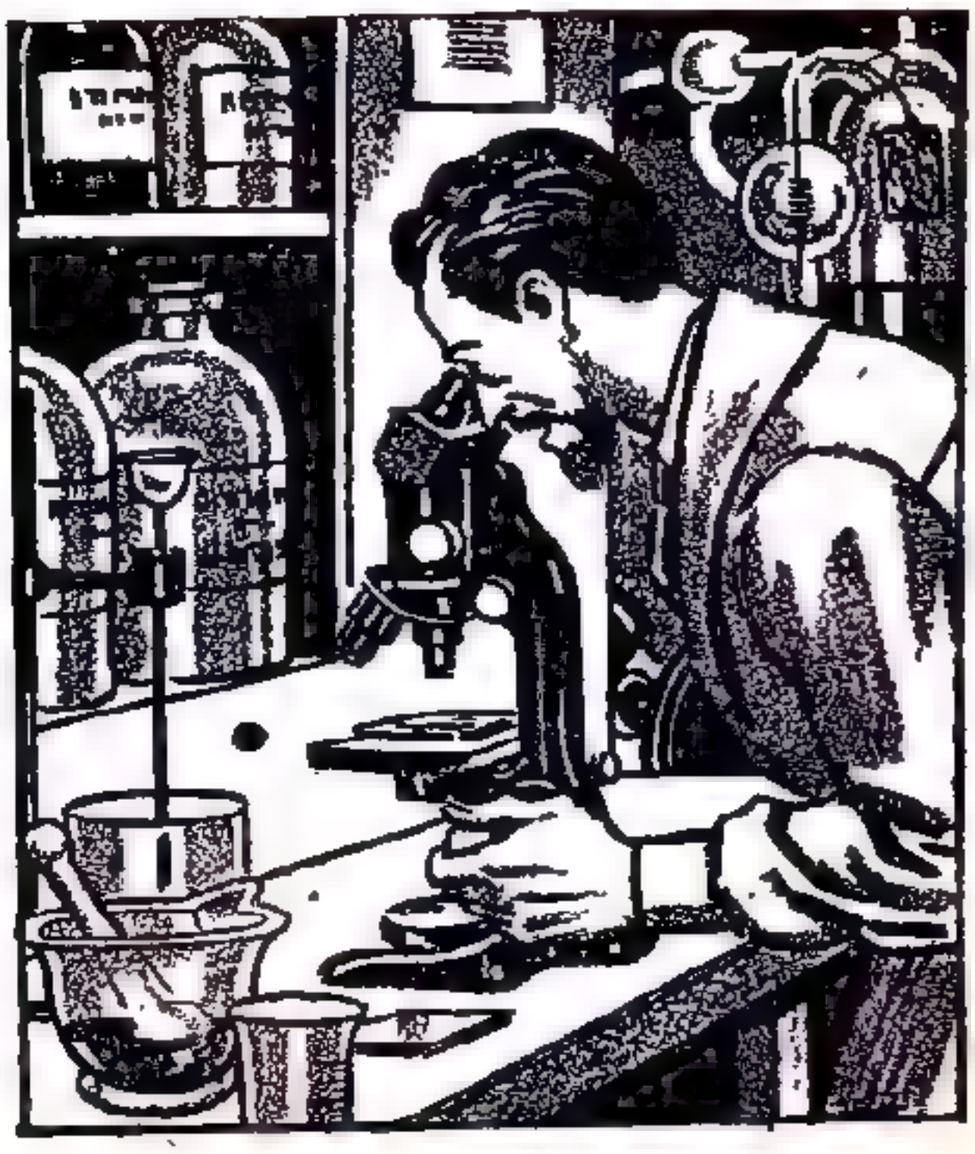

## BINDER'S BEST
### By THOMAS S. GARDNER

The second issue of STARTLING STORIES fully bears out the policy of good stories laid down by the memorable first.

"The Impossible World" is the best story Binder ever wrote. It is well planned and written. Please pass on to him my congratulations. His characterization is swell and I have few objections. I cannot agree with his science in regard to planetary conditions on Jupiter, nor for the possibility of one substance acting as a universal hormone—although the idea is unique, and I believe, original and an excellent story point. His chief scientist acted like a spoiled child—and by gosh, many scientists I know do too. It is about time the scientist is taken down from his pedestal of either a crank or austere super-being. Go to it.

Hamilton's "Fear Neutralizer" was o.k. Hamilton always writes well. "Turnabout" was very, very good for a short short. The departments were very good, especially THRILLS IN SCIENCE. I had never heard the story concerning Copernicus. The human interest in this department will do more to develop a genuine interest in science and scientists as human beings than many books would. I hope the succeeding issues are as well written and edited as this one.—903 John Jay Hall, Columbia University, New York, N. Y.

## FINLAY MAGNIFICENT
### By HARRY WARNER, JR.

We could hardly expect the standard of the second issue of STARTLING STORIES to come up to that of the first. But, nevertheless, it came close to it! "The Impossible World" was about the finest thing that Binder has ever written, in my opinion. The idea, on the whole, was good, though not completely original, and the narrative style was superb.

It only goes to bring out my old theory that any author can do better on long novels than with shorts and novelets. Whatever you do, don't stop printing the full-length novel each time—and keep it long, at least eighty pages.

The reprint was again well chosen. I haven't any nominations to make for THE HALL OF FAME, but I would like to second several nominations in the second issue, particularly Weinbaum's "Martian Odyssey;" Manning's "Seeds from Space;" and "The Sublime Vigil," by Cuthbert. I've read all three, but I would like to see them again. And, by all means, put Weinbaum's bust in the cut for THE HALL OF FAME. He certainly belongs in the class with the masters.

All of your features are good, though you can do away with SCIENTIFIC CROSSWORD PUZZLE and SCIENCE QUESTION BOX and enlarge THRILLS IN SCIENCE without doing the mag any harm, in my opinion. Keep up the fan mag reviews.

Saving the best for the last—use Finlay hereafter as much as possible! His drawings for "The Impossible World" were about as good a set as any s-f artist has ever done. The one on Page 37 is truly magnificent, and the small portraits of the characters can't be beat.

And I'm still waiting for you to print "Dawn of Flame!"—311 Bryan Place, Hagerstown, Maryland.

(In answer to Mr. Warner, and to the hundreds of readers that have written in requesting publication of Stanley G. Weinbaum's great novel, "Dawn of Flame," we are pleased to announce that the story will appear in the Tenth Anniversary Issue of THRILLING WONDER STORIES. The novel will be published complete, in special supplement form. It has never before been published in any magazine.—Ed.).

## FUTURE VS. PRESENT
### By GEORGE V. CALVERT

"The Black Flame" and "The Impossible World" were both fine stories of the future. Stories of the future are interesting, but I think too many are now being written. Therefore, I would like to see a few novels of the present.

Weinbaum's "The New Adam" and any of Taine's unpublished novels would make good material for future issues. Your policy of reprinting the classics is fine, and I would like to see some of the stories that were very popular in the past once more.

THE SCIENTIFIC CROSSWORD PUZZLE is entertaining, and I would like to see that feature continued.

In conclusion, STARTLING STORIES is the best of the new science fiction magazines, and I hope that it will continue to appear. Although it is of little importance, I would like to see S. S. come out in large format.—335½ Woodland Avenue, Williamsport, Pa.

## FAVORS FINLAY
### By RALPH C. HAMILTON

Your March issue was excellent, although the feature story was not, of course, and could not have been expected to be, equal to Weinbaum's yarn. But what really made this issue good was Finlay. I could rave for some time about his illustrations for "The Impossible World;" in my opinion they're the best that have ever ornamented science fiction.

You are to be congratulated on securing him to illustrate for you; you couldn't have obtained anyone better.—Wooster, Ohio.

## THE FLAME BURNED HIM!
### By FORREST J. ACKERMAN

The Princess?
The English language is too lame
To justice do the Ebon Flame!

So—I employ Esperanto, famed Universal language of the future—to describe the "princino" as . . . that damne deloga diablino!

THE BLACK FLAME: Science subordinate in this amazing interest novel of the Goddess and the guy who wouldn't grovel. I could

*(Continued on page 120)*

**THE ETHER VIBRATES—with the letters sent in by loyal followers of science fiction. Add your voice! This department is a public forum devoted to your opinions, suggestions and comments — and we're anxious to hear from you. Remember, this is YOUR magazine and is planned to fulfill all your requirements. Let us know which stories and departments you like — and which fail to click with you. A knock's as welcome as a boost—speak right up and we'll print as many of your letters as possible. We cannot undertake to enter into private correspondence. Address THE ETHER VIBRATES, STARTLING STORIES, 22 West 48th St., New York, N. Y.**

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*(Continued from page 119)*

never, as editor, have devised proper publicity for it; only said, "Blurbs fail me!" Immortal, irresistible and evil—Margaret of Urba, unequaled in the annals of imaginative literature. I have introduced half a dozen people to STARTLING STORIES, certain that such a startling story would impress them with the appeal of scientifiction. If only you can keep up such a standard of book-length features.

Weisinger's series excellent. Don't bunch the illustrations all at the beginning of the novel. Recommended reprint: "The Cubic City."—236½ N. New Hampshire, Hollywood, Calif.

## WEINBAUM BRILLIANT
### By CHARLES B. HIDLEY

"The Black Flame," by Stanley G. Weinbaum, was one of the most beautiful character studies I have ever read in fiction or non-fiction. It was truly wonderful, and you are to be congratulated for publishing it in such an artistic manner with the interesting illustrations by Wesso. What could possibly be more perfect? Action, science, beauty, love, hate, and endless other human emotions, combined with that inimitable Weinbaum style that was so great. Justly title it as the best scientifiction novel ever written. By all means let us see "Dawn of Flame."

THE HALL OF FAME is a clever and long sought-after idea. "Science Island" was well written and exciting. Mr. Binder is indeed fortunate to be able to stand next to Weinbaum and still be recognized through the aura of brilliance. Bravo, Mr. Binder.

The profuse features join to make the whole issue a stupendous success—and for a first issue, too. I have only one adjective left—it really is amazing. I only hope you continue the good work.

## PERFECT LINE-UP
### By HENRY BOERNSTEIN

Of course it's too soon to tell, but I believe that with your first issue you have surpassed every other scientifiction mag on the market! And this in spite of the fact that the January issue didn't contain my favorite type of story—the interplanetary novel. However, I see you are going to make up for that in the next issue.

Weinbaum was always my favorite author, and he certainly didn't disappoint me with "The Black Flame." Here, for the first time, he had a chance to expand and encompass many little twists in the plot. Never have I read a story with that interesting variation to it—the fact that the hero does make mistakes, doesn't marry the first girl that enters the story—and best of all, is no superman. It is hard to criticize this story, there being nothing to criticize. All I could have suggested was a sequel, a pleasure which is, unfortunately, impossible.

Stick to your policy of one long novel and two or three short stories. It not only lends itself to originality, but it enables you to publish really worthwhile classics. Brevity may be the soul of wit, but certainly not of scientifiction

I enjoy stories that transport the reader to a distant planet, among steamy vegetation and weird forms of life, into an environment totally alien and mysterious, in which a space-suited figure wanders about, exploring and uncovering evidence of a race far in advance of our own. A fantasy, in short, of what will inevitably come when humans conquer the uncharted vastness of space. And Editor, if it is at all possible, obtain and reprint that story which so many of us have missed—"The Moon Pool."

Now, as to the features of the new magazine: I gaze bewildered at the almost perfect line-up; all the features I ever hoped to see are here, particularly THE HALL OF FAME, the Tribute to Weinbaum, the Guest Editorial, and the Science Fiction Fan Publications' Review. There is an inexpressible pleasure in communicating with such organizations and exchanging views.

Here are some suggested—nay, demanded, authors you should have in the future—R. Z. Gallun, C. L. Moore, W. Van Lorne, Eando

Binder, Arthur J. Burks, Stanton A. Coblentz, E. E. Smith, Murray Leinster, Charles W. Diffin. Best wishes for the future.—1071 Mount Royal Blvd., Outremont, Montreal, Canada.

## BIG BARGAIN
### By SEYMOUR KAPETANSKY

Weinbaum novel big bargain; best recent long s-f story is "Black Flame." Good sociology, psychology, plus human interest, sex angle surprisingly sensible. Where in the world are you going to find such excellent novels as "Black Flame?" Good luck.—1524 Taylor Avenue, Detroit, Michigan.

## SIX-GUN SALUTE
### By DEWEY V. HALE

Seventeen years a science fiction reader, yet this is my first compliment to a story. "The Black Flame" is, in my opinion the best story ever published. Don't worry about readers if you can publish complete stories like that one.

I bought six copies of the first issue and passed them around to my friends because I felt they were missing a great treat if they failed to read "The Black Flame."

More issues like that first one!—Wyoming, W. Va.

## THE WEINBAUM SPELL
### By LANGLEY SEARLES

STARTLING STORIES enters the scientifiction field in great fashion. It was even a better issue than I had hoped for. The cover wasn't bad looking, and the lettering of the title was pleasingly modernistic. Ditto for the lettering on the back binding—a year's row of them should present a good appearance on any bookshelf.

The cuts used for the various department headings have a neat, up-to-the-minute look which I like. A praiseworthy idea, reviewing fan publications; keep this up. Jack Binder's feature is, as always, good. The crossword puzzle brought back memories of several years ago, when as a high school geometry student I completed a 12x12 one, using geometrical terms exclusively; it was some job!

Now to the stories. "Science Island" was a typical pot boiler. "The Black Flame"—first, last, and foremost was excellent. Same for the illustrations. Someone back in 1935 said (in effect) that Weinbaum's stories make you "sorry as hell to wake up;" never, Mr. Editor, have truer words been penned.

I've read the novel twice already, and I'll read it many times again, as I have all his works. It was superbly written. Not a single paragraph or sentence was boresome or dull; as Otto Binder said, its very simplicity is misleading. No one but Weinbaum could turn mere words into such a story with such artistic deftness.

"The Black Flame" was successful for the same reason that all his others were: Weinbaum remained within the circle that he drew, with the result that the circle becomes as wide as the universe, and as limitless as the horizon. And its spell lingers on after you've laid it down, just as its author's name lingers in the mind of every scientifiction reader today.—19 East 235th St., New York City.

## WILLIAMSON WANTED
### By J. HARVEY HAGGARD

I certainly enjoyed "The Black Flame."

Please get a new novel-length by Jack Williamson. As a consistent entertainer, he's tops. Something similar to "The Legion of Space." I can still remember that outstanding character, Giles Habibula.

Second in order of preference would be a tale by Nat Schachner, similar to his refreshing story, "He From Procyon." These, of course, are merely the preferences of one reader.—San Bernadino, Calif.

*(Continued on page 122)*


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*(Continued from page 121)*

## IMMORTAL STORY
### By JACK DARROW

Book-length science fiction novels complete in one issue—it's good to have that again. Reminds one of the old quarterlies. "The Black Flame," by Weinbaum, is one of those stories I hated to see end. I was just content to read on and on. The end had to come, though, and I am thankful that it was a happy one. An immortal story.

The book-length novel is the main event in STARTLING STORIES. It should have been given the cover. There are any number of scenes from "The Black Flame" that would have made good cover scenes. The one in which a "messenger" catches up with Tom Connor is one—given a half page drawing by Wesso, with the city of Urbs as a background.

The various departments are interesting. THRILLS IN SCIENCE is very entertainingly written. There are 13 pages of non-fiction in the Jan. issue. Why not eliminate SCIENCE QUESTION BOX, retaining all the other features, and use the space instead for fiction. A few extra pages of illustrations for the novel, perhaps. I'm looking forward expectantly to the March issue. Best wishes for a large circulation.—3847 N. Francisco Avenue, Chicago, Ill.

## VIVA VIRGIL
### By RICHARD FRANK

Just a word of thanks for securing the services of the best pulp artist in the business—the one and only Virgil Finlay. I started getting a weird magazine several years ago when it began using Finlay's work; when he appeared in A. Merritt's American Weekly I started copping that: now that Virgil has landed in one of my favorite s-f mags, STARTLING STORIES, I'm more of a fan of yours than ever before. Don't let Finlay get away, and put him on the cover, by all means. —333 S. Burrowes St., State College, Pa.

## EVOLUTION OF S-F
### By FRANCIS J. LITZ

I have watched with interest, the evolution of scientifiction within the last five years. I have seen its uprises and downfalls, and now, it is finally trying to reach its peak, the ultimate that it was in 1933-34. STARTLING STORIES fills the need for a long novel that is not in serial form, and that is what a large majority of scientifiction readers have been wanting ever since the days of the quarterlies. Your first issue was excellent.—703 Brown Street, Rochester, New York.

## FLAME LITERATURE
### By JOHN A. BRISTOL

I think STARTLING STORIES is a grand idea, and you certainly have had an auspicious send-off. "The Black Flame" was as great a novel as I have ever read. The intricate interweaving of the plot, the various conflicts and cross-pulls throughout, make it first-grade literature in any man's language.

While HALL OF FAME is a good idea, I hope you don't publish something I've already read. I am not a fair judge, though, so you go ahead and do as you like.

The fan mag department has brought me into contact with something that I didn't know could exist—the Los Angeles magazine, "Imagination."—5134 Conduit Road, Washington, D. C.

## LONGS FOR THE LONG NOVELS
### By S. S. SOWERS

It just seems too good to be true. Over 80 pages devoted to one story. After the steady diet of shorts you don't know what a relief it was to indulge in a story that didn't end just about the time it got going good. All I

can say is that they don't come too long for me. If each issue contained just one long story of about 150 pages, I'd be lost to the world for quite a while, I'm afraid.

Remind your authors that a good scientifiction story does not need the addition of sentimental love interest or strange and improbable menaces that are casting hungry glances at the Earth, humanity, and everything else in sight. Witness your reprint of "The Eternal Man" and especially Weinbaum's "Martian Odyssey." "The Black Flame" is a good example of a well-balanced story.—4115 E. Slauson, Maywood, California.

## EVERYTHING'S TOPS

### By PAUL L. M'CLEAVE

Just obtained a copy of STARTLING STORIES, and have finished everything but the long novel, "The Black Flame." (I even did the crossword.) Am saving Weinbaum's great story until last because I want to digest it at one meal. Sad that a man of his genius should pass on into the "dark universe." Scientifiction has lost a master. THE ETHER VIBRATES is tops. But then, so's everything. "The Eternal Man" nearly brought tears to my eyes. Luck to you.—11 Prospect Street, Nantucket, Mass.

## BINDERS OKAY

### By G. W. FENSLER

I have just finished the first issue of STARTLING STORIES, and for me it satisfies a long-felt want—that of enjoying long stories or novels of science fiction.

I note that the next issue has a long novel by Eando Binder, which should make it another top-notch issue. While I have never read any long novel by the Binders, I have been reading their short stories for several years, and it seems to me that they are improving all the time.

I am not a scientist, but an accountant and auditor. I do not care whether a story has all the very latest scientific ideas or theories, but I like it to be interesting in the human reactions, and true to life. Also to the probable, under the circumstances and conditions laid down by the author, or at the very least possible, and the human reaction, with which we are all more or less familiar, natural.—Dupont, Ohio.

## QUADE & CARLYLE-R

### By SAM SIMPSON

Orchids to you for STARTLING STORIES! "The Black Flame" was just the type of story I like. But, hereafter, I suggest that your cover illustration should illustrate the feature and not one of the short stories.

Binder's "Science Island" was just fair, and "The Eternal Man" failed to click with me. However, THE HALL OF FAME has great possibilities.

Mark me down for a vote for a book-length novel of Anthony Quade and Gerry Carlyle. It should be the berries! If possible, I wish that you could get Burroughs to contribute a manuscript to your magazine. Otis Adelbert Kline should produce a swell novel for you, too. Don't pass him up. You could pass up Penton and Blake and never get a single howl from yours truly. I've seen too much of those birds in T W S.

I have yet to read Weinbaum's "A Martian Odyssey," and so of course I would like to see it in the HALL OF FAME. I am only fifteen years old, so you can see that I didn't get a chance to read the story when it was originally published, several years ago. In closing, I would like to wish your magazine much popularity and a long life.—Front Royal, Virginia.


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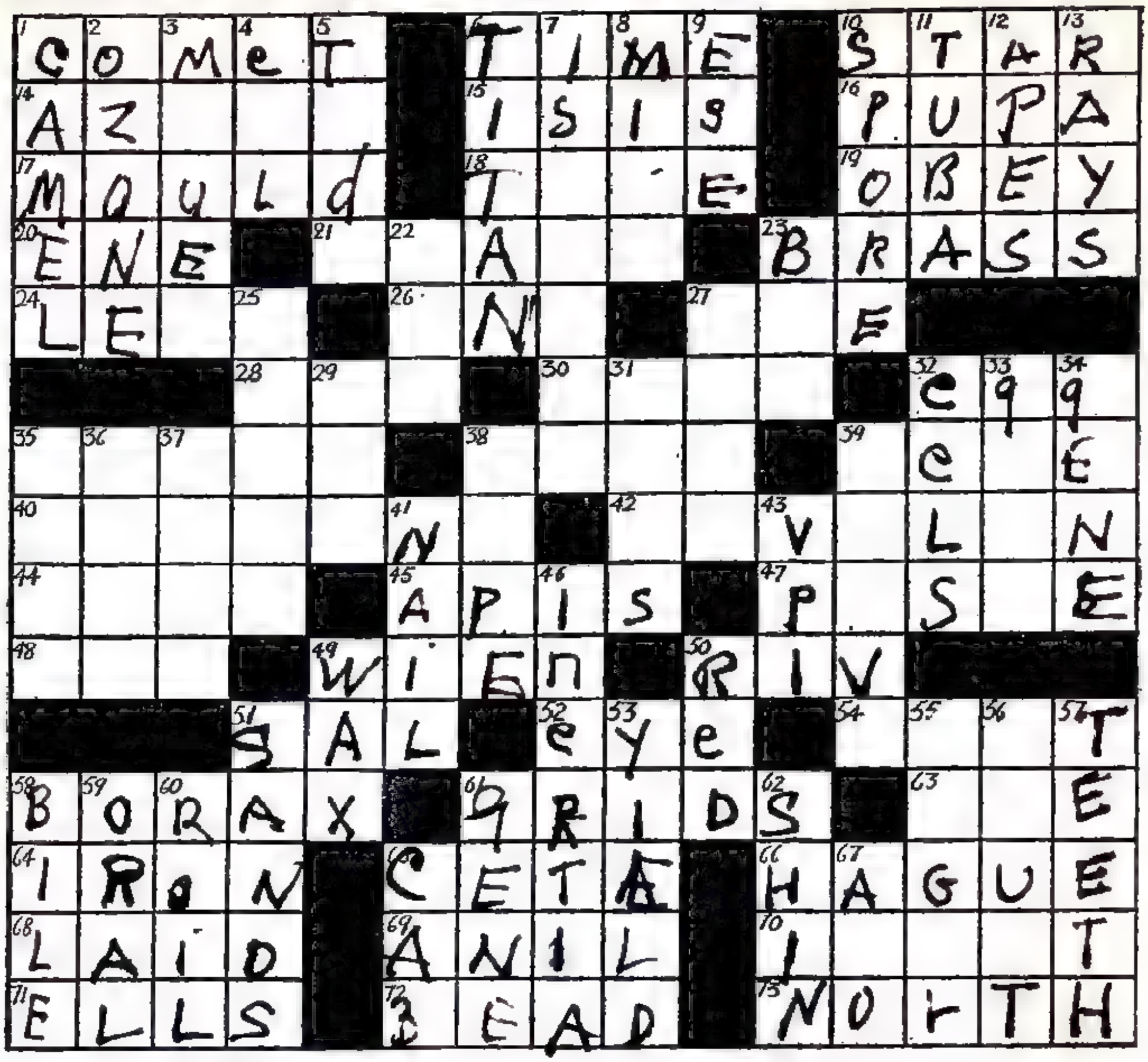

## HORIZONTAL

1—Heavenly body with a tail
6—Einstein's favorite dimension
10—What the sun is, but Earth isn't
14—One of a group of compounds having a six-membered ring holding an atom of nitrogen and one or more non-carbon atoms
15—If you lived in ancient Egypt, she'd be your principal goddess
16—An insect goes thru the egg stage and larva stage before it reaches this
17—Damp bread, kept under a glass jar, will exhibit a luxurious growth of this in a few days
18—Air disturbances with rhythm
19—To do as directed
20—East-northeast (abbr.)
21—Middle tissue of hyphae between two layers of hymenium in the sporophores of certain fungi
23—Alloy of copper and zinc
24—The size of Mars as compared to Jupiter
26—Valence of lithium
27—Particular shade of a color
28—Neurotic spasm or twitching of muscles
30—One-fourth of a statute acre
32—Sperm's female companion
35—Light purple color with a tinge of pink
38—Range of mountains in West China
39—Series of changes found in a given plant formation from the initial to the ultimate stage
40—The processes of mountain-formation
42—Colorless compound resembling starch
44—What corn is on (plural)
45—Returning to 15 horizontal, this is the sacred bull you'd worship
47—Used in making false gems
48—Atomic weight of hydrogen
49—Winner of the Nobel Physics Prize in 1911
50—River (abbr.)
51—Salt
52—Organ of vision
54—Point of the horizon lying on the right hand when one faces the North Pole
58—White crystalline compound used as an antiseptic in preserving food, in medicine, etc.
61—The helix of fine wire in vacuum tubes used to control the amount of electronic flow (plural)

The solution is on Page 128—if you MUST look!

BEST FUN, FICTION AND FOTOS IN

63—North Polar Engineers (abbr.)
64—Steel minus one per cent of carbon
65—Division of mammals, including the whale, porpoise and dolphin
66—Capital of the Netherlands
68—Paper marked with close, fine, parallel water-marked lines
69—The dye-indigo
70—Possessing inertia
71—Cloth measures
72—Perforated ball, often strung on a thread
73—Pole discovered by Perry in 1909

## VERTICAL

1—Animal that is rumored to go eight days without water
2—Gas formed by the passage of electricity thru the air
3—Length per second referred to in giving 186,000 as the speed of light
4—Point in time at which some process ceases
5—What litmus is for determining the presence of acids
6—Sixth satellite of Saturn
7—Substance having the identical composition as another substance, but showing different properties (plural)
8—Oriental singing bird
9—East-southeast (abbr.)
10—Reproductive cell which is asexual
11—Brass-wind instrument of low pitch and powerful tone
12—Old-World man-like monkeys
15—Narrow beams of light
22—Mythological bird of prey
23—An embryonic structure developing from the main body of an organism and which will form an organ or another individual
25—These animals are usually at bay
27—Block of fine compound stone for sharpening edged tools
29—Condition assumed by water below 32° F.
31—Liquids insoluble in water, sometimes soluble in alcohol, and always soluble in ether
32—Snake-like fishes
33—Compact sandstone
34—Determiner of specific hereditary qualities
35—Poisonous plant of the bean family in the West and Southwest of the United States
36—Most important metallic element
37—Protuberance of the ear
38—Something that represents something else
39—Smooth and pleasant in manners
41—Horny substance at the end of a finger
43—Virginia Polytechnical Institute (abbr.)
46—Property of matter referred to in Newton's first law of motion
49—Substance excreted by bees from their bodies
50—Color of the spectrum farthest from the violet
51—Fine particles of stone used in relation to time (plural)
53—Product resulting from cultivation
55—Ire
56—Sudden gush of liquid
57—Bony structures growing out of the jaws of vertebrate animals
58—Liquid secreted by the liver
59—Pertaining to the mouth
60—To render muddy by stirring up sediment
61—Mendel's factor
62—Front part of the leg below the knee
65—Covered part of a locomotive
67—Prefix meaning upward


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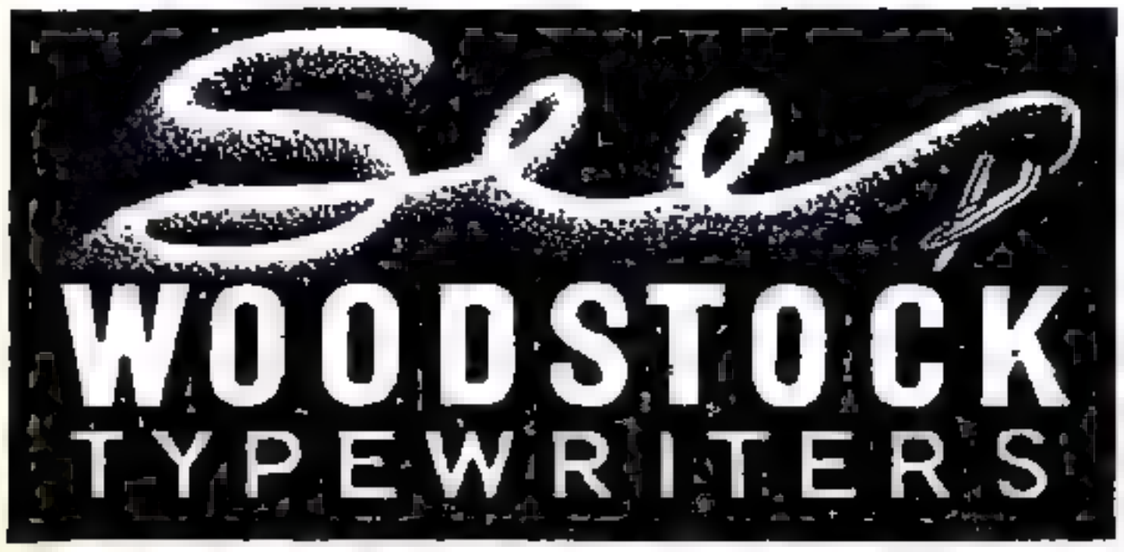




# MEET THE AUTHOR

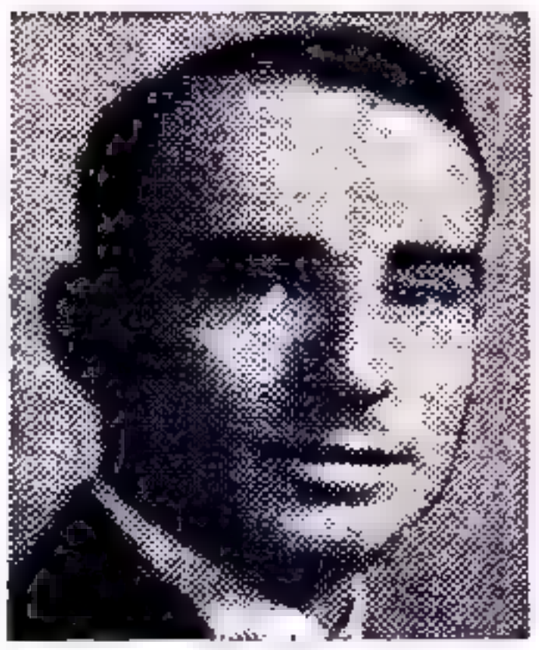
"YES, yes," said Hamilton, stroking his pet tiger-cub, "I've had quite a thrilling life. I believe my most exciting experience was when I climbed Mount Everest, just after my deep-sea diving expedition, and before I became a general in the Chinese Army."

Well, that's the kind of autobiography I'd *like* to write! But honesty compels me to admit sadly that I am just an average sort of person.

Born 34 years ago, and lived ever since in a small Pennsylvania city. High school and then college, where I majored in physics and drove my instructors crazy by continually propounding original scientific "theories" of my own.

Took a job in a railroad office, and then my passion for science fiction drove me to try writing a story. It sold, and that started me on my career of crime.

I'm unmarried, and like to gad about the country. Get out to New Mexico to visit Jack Williamson nearly every year, and he returns the visit every two or three. My other favorite spots are New Orleans, San Francisco, Quebec and Fort Madison, Iowa. One place I don't like much is Mexico, but for some queer reason I've been down there three times in the last four years.



*Edmond Hamilton*

Never had but two adventures of the hair-breadth type, and they both fizzled. Once in a rowboat on the lower Mississippi I was nearly pulled under a barge—but a swearing barge-hand slung a rope and hauled me ignominiously to safety. Other time was when I upset myself and companions in a sailboat off the Florida shore—and then discovered the water was so shallow we could almost walk home.

I've done close to two hundred stories, including a good many detective and mystery tales. A book of my fantastic stories was published in England a year or so ago. Two or three stories have been reprinted in anthologies.

Because I've been a science fiction fan ever since I was twelve, writing such stories seems to me the most fascinating occupation in the world. I get a big thrill out of every story I do. I only hope a little of that thrill gets across to the reader.

—*Edmond Hamilton.*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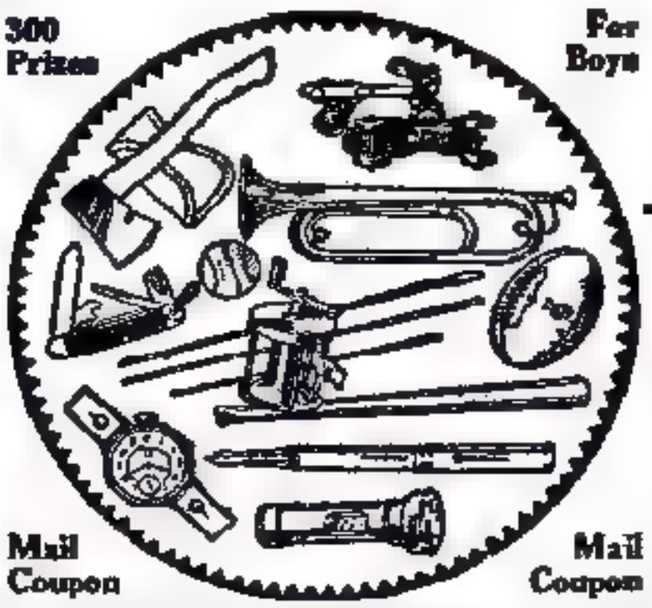

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# REVIEWING THE SCIENCE FICTION FAN PUBLICATIONS

**THE SATELLITE. 57 Beauclair Drive, Liverpool 15, England. (Organ of the Liverpool Science Fiction Association Branch). Edited by John F. Burke and David McIlwain.**

THE SATELLITE, an English journal devoted exclusively to science fictional activities, changes its format with its latest issue—for the better. Big feature of current number is the introduction of a round-robin science fiction serial, to be written by three different fans, each installment-creator to end his part with as tough a situation as possible. Will the lads carry on? Gossipy items on British science fiction round out the issue. Mimeographed, but readable.

**YEARBOOK OF SCIENCE, WEIRD and FANTASY FICTION. Box 260, Bloomington, Illinois. Edited by Bob Tucker; Artwork by Judith Marie Tucker.**

The Yearbook of s, w, & f-fiction is almost encyclopedic in scope, carries a complete index to practically every line of science fiction penned during the year 1938, with names of magazines, dates, authors, stories, artists. A pretty handy item to those that may have skipped an issue or two of any mag in the field. This Yearbook is an invaluable catalogue of science fiction for the past year. Tip for 1939; issue: Editors should note length of stories indexed, whether novelet or short story, etc.

**THE SCIENCE FICTION NEWS LETTER. 86-10 117th Street, Richmond Hill, N. Y. Edited by Richard Wilson, Jr.**

This duo-paged sheet is all that its name

## SOLUTION TO CROSSWORD PUZZLE ON PAGE 124

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implies, and sometimes more. Editor culls the nation's press, radio and flickers for items with a science fiction angle. A collection of miscellaneous Winchellian s-f tidbits in every issue. Data unimportant once in a while. You've got to take the bad with the good.

**FANTASY-NEWS. 137-07 32nd Avenue, Flushing, New York. Edited by James V. Taurasi.**

FANTASY-NEWS goes on like TIME, each weekly edition pithy with news scoops on the science fiction front. Magazine has expanded in size, and multi-paged numbers are packed with headlines and bylines. Ideal for the advanced fan as well as the beginner. Would like to see this mag review the professional s-f magazines. We can take it.

**THE SCIENCE FICTION FAN. 2251 Welton Street, Denver, Colorado. Edited by Olon F. Wiggins, Donald A. Wollheim, Hayward S. Kirby and James M. Rogers.**

Diverting articles on various aspects of science fiction can be found in the current issue of this bulletin. Mag features some breezy departments, attractive illustrations. Format neat.

# FORECAST FOR THE NEXT ISSUE

SUPPOSE you had the power to bring back to life the greatest scientists that ever lived. Suppose, moreover, that your choice were limited, and that you could only revive *five* scientific giants from all history.

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With the annals of history to consider, which five geniuses from the past does Dr. Norfleet endow with life? How do these five master recruits, equipped with twentieth century knowledge, combine their natural resources to help combat the strangest doom that has ever gripped the Earth?

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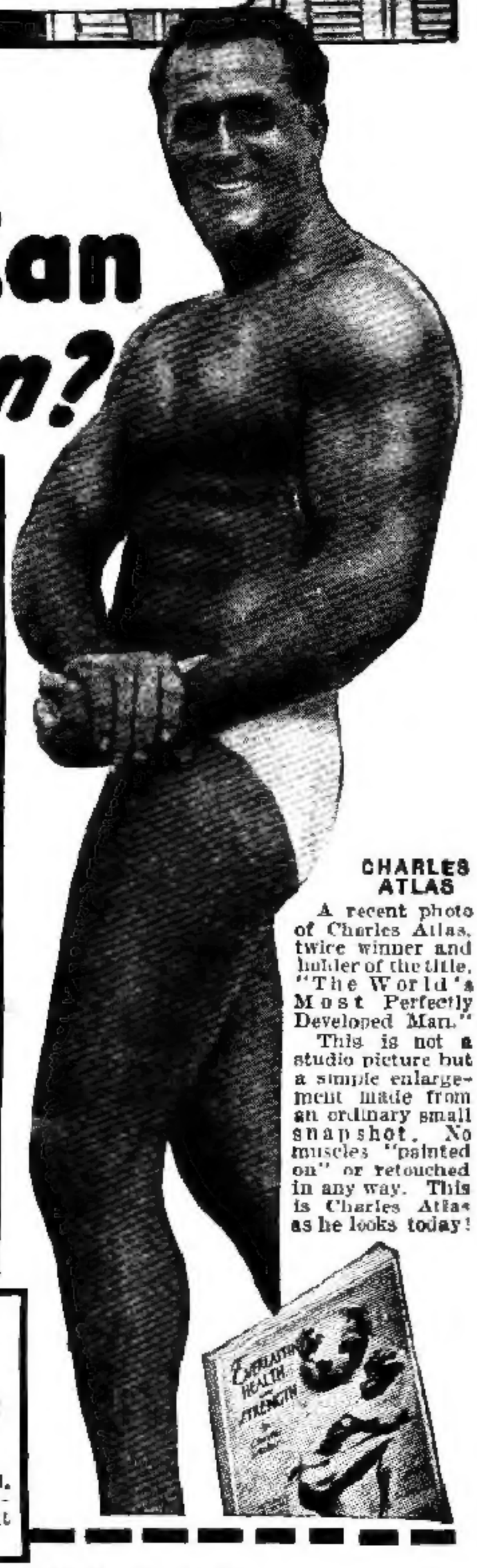

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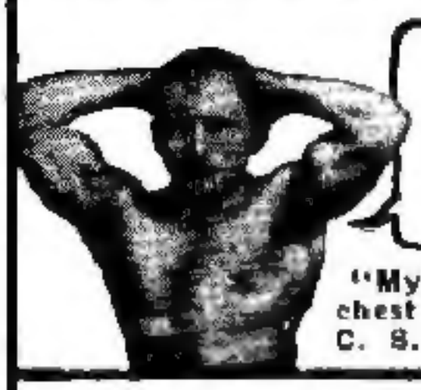


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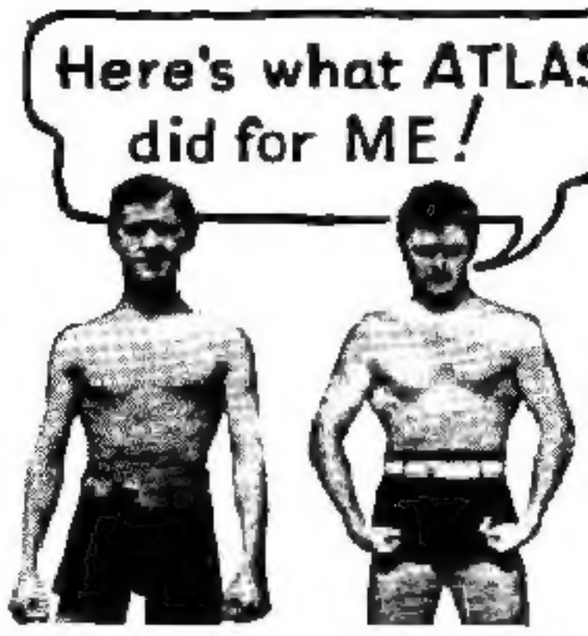

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